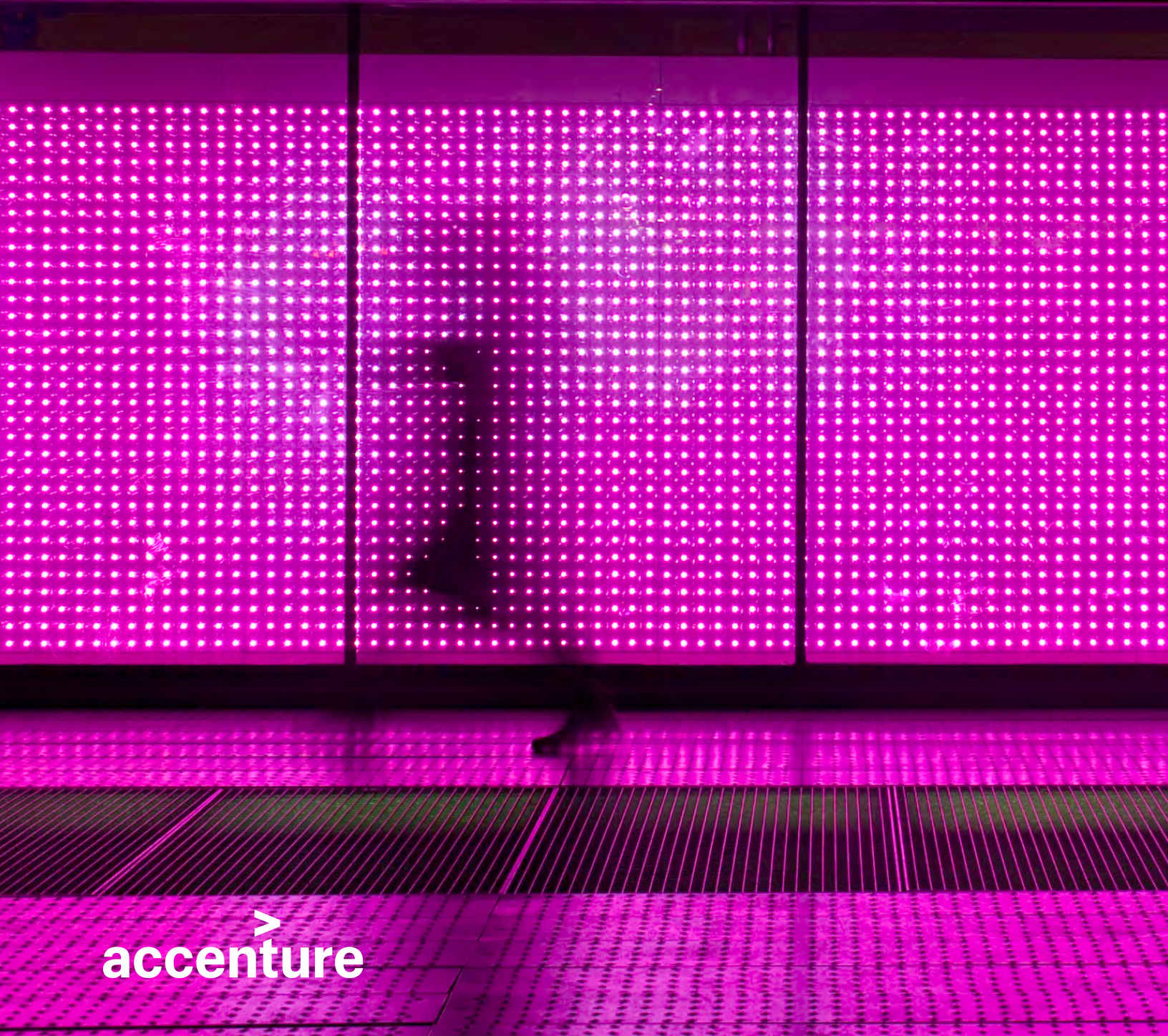


Collaborating to win in Canada's Fintech ecosystem

Accenture 2021 Canadian Fintech report



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Introduction

As the pace of change continues to accelerate, industry boundaries blur; financial institutions, now more than ever, are adopting the mindset of technology companies. As both market and regulatory forces push these Canadian companies into the spotlight, the financial services ecosystem may be poised to deliver the most personalized and seamless digital experiences Canadians have ever seen. This report offers insights into this ecosystem for 2020 in four parts:

Part 1: Canadian Fintech Ecosystem Analysis

We examine the current state of the Canadian fintech ecosystem - at both the national and city level - in terms of growth, talent, and investment. We also discuss how incumbent financial institutions (FI) are responding and collaborating, the importance of incubators and accelerators, and the government's role in supporting even further innovation.

Part 2: Financial Services Industry Outlook and Trends

We elaborate on key emerging trends we see as influencing the future direction of the Canadian financial services industry. These include data ownership, privacy and digital identity, the banking-as-a-service model, the importance of small and medium-sized business (SMB) clients, and several possible industry impacts from COVID-19.

Part 3: Global Fintech Ecosystem Benchmarking

Using our benchmarking model, we rank four Canadian cities (Calgary, Montreal, Toronto and Vancouver) against 16 leading and emerging fintech hubs around the world. This quantitative model draws on 46 individual data points from various public and proprietary sources, distilled into five key metrics.

Part 4: The Canadian Fintech Ecosystem: Looking Ahead

Finally, we summarize our findings and explore opportunities to further accelerate the growth of the Canadian fintech ecosystem. Key themes moving forward will be accelerating ecosystem collaboration, fostering innovation policy and expanding global recognition.

Executive Summary

The Canadian fintech industry approached the end of 2019 on a bull run, entering a new decade with hundreds of nascent startups supported by record levels of investment. Some of this success has been temporarily overshadowed by COVID-19. Now cautiously navigating out of quarantine, we look back at an unprecedented year for Canadian fintech while examining trends that may shape the future of the ecosystem.

Strong ecosystem partnerships coupled with sophisticated investors have helped Canadian fintech startups during the crisis. Incumbents and startups alike have also found innovative ways to use their platforms to assist clients and the public at large during the pandemic. Venture capitalists also remain optimistic about future industry prospects, particularly given the country's strong talent base and cross-border appeal.

The changing dynamics between fintechs and other ecosystem participants - including incumbents, innovation hubs and the government - are also of interest this year. As more institutions develop technology partnerships, new strategies are emerging for both serving and protecting customers. Concerns about the privacy and security of consumers have been raised in recent public consultations particularly when it comes to rising usage of screen scraping technology. While the pandemic has accelerated the

adoption of digital among Canadians, the long-term impact of COVID-19 on the pace, shape and evolution of the fintech ecosystem remains to be seen.

As policy catches up to consumer behaviour, Canada is already witnessing the emergence of modern enablers built for a connected future. Several public and private bodies are pushing ahead with digital identity projects, while banking-as-a-service models are blurring the lines of what it means to be a "fintech". The pandemic also bared other opportunities and gaps in the market. For one, fintechs demonstrated their resilience in a socially distant economy. The industry at large may also help set new standards in our post-pandemic world in areas such as credit decisioning and small business solutions. Cloud, AI and API technologies also stand to offer evermore personalized and seamless experiences.

Looking ahead, the Canadian ecosystem remains poised for growth. Our global benchmarking study found that while Canadian cities are benefitting from the basic factors necessary to achieve international leadership, major hubs may still have room to build stronger reputations as world-class fintech communities. Hubs such as Calgary, Montreal, Toronto and Vancouver might achieve this by fostering further innovation, collaboration and international expansion.

Part 1:
**Canadian Fintech
Ecosystem Analysis**

I. Canadian Fintech Overview

Despite the challenges brought about by the global pandemic, 2020 remained an exciting year for Canadian fintech*. As the ecosystem evolves, new partnerships are being forged and international recognition is on the rise. Although long-term trends shaped by COVID-19 remain to be seen, many Canadian fintechs and financial institutions stepped up and pitched in from coast-to-coast, despite the uncertainty. Looking ahead, we remain optimistic about the country's tech talent as well as the prospects for Canada's growing fintech hubs.

Canada's Fintech Ecosystem is Evolving

Last year the fintech ecosystem flashed signs that may indicate shifts in the broader industry are taking root in Canada, perhaps accelerated by the pandemic.

By the end of Q3 2020, global fintech deal activity had declined by 24% in the prior 12-month period.¹ While preliminary global Q4 figures indicated a bounce back may be underway, both deals and dollars were still on track to decline from last year.² Notably, global seed-stage deals have been projected to fall to 37% of total activity in 2020, with later-stage deals gaining in share.³

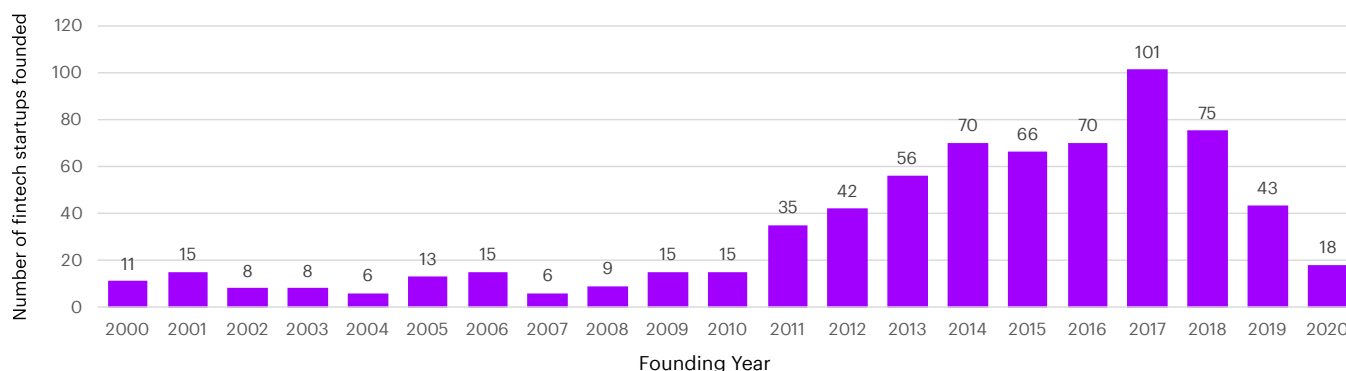
While Accenture analysis found early-stage deals' share of deal volume stayed relatively consistent in 2020, average early-stage deal size has dropped since the beginning of the pandemic.⁴ Venture executives have lamented this challenge over the past year. After graduating Acceleprise's first Canadian startup cohort in 2020, CEO Michael Cardamone stated his team "didn't fully realize how much of a funding gap there is in Toronto for the pre-seed stage".⁵ Likewise, Brightspark Ventures' Managing Partner Mark Skapinker described Canada's situation in 2020 as "a little bit of a seed crisis".⁶ On the other end of the spectrum, one area where Canada may be diverging from global trends includes so-called fintech "mega-rounds". Whereas 2020 represented a high watermark for these major deals globally as high-tech solutions caught the attention of investors during COVID, Canada's share has declined as of Q3 2020.^{7,8}

See the *Venture Capital* section for further investment analysis.

Aside from investment, the slowing rate at which Canadian fintechs are being founded may indicate Canada's fintech ecosystem is broadly evolving. The country is now home to approximately 700 fintechs, with 18 of those founded in 2020. This is the second straight year in which the number of fintechs founded has declined, and represents a material drop from the 43 founded in 2019 (see Figure 1.1). Such a decline may be attributable to various interrelated trends, with early-stage financing challenges discussed above being one possibility. The economic recession initiated by COVID-19 may have also caused some would-be entrepreneurs to temporarily pause projects. Based on research conducted throughout the rest of this report, longer-term possibilities may include an accelerating convergence of offerings leading to a more crowded market, or the rise of later-stage, large-scale fintech employers. Examples of the latter might include fintechs such as Lightspeed or Wave, who both achieved high-profile exits in 2019 while continuing to expand the breadth and depth of their services across industry boundaries into 2020.

*This report defines Canadian fintechs as those firms that are headquartered in Canada, founded after the year 2000, and whose main products leverage technology to offer financial services that complement or compete with products provided by established financial institutions.

Figure 1.1: The number of Canadian fintechs founded, 2000 – 2020. The number of new fintech companies established has declined since 2017.



Source: Accenture analysis of Crunchbase, Pitchbook, FinCadence, Maple FGS and CB Insights data.

Nonetheless, Canada still has opportunity for growth when it comes to fintech adoption and financing rates (see Part 3: Global Benchmarking). As these Canadian fintech leaders have emerged, public shareholders and early acquirers may now be looking past growth to profitability. During this period of refinement, new opportunities may slowly begin to emerge at the seams between large-scale, established fintechs and incumbent institutions. Moreover, experienced talent incubated within these mainstay businesses may go on to lead a new wave of innovative Canadian fintechs.

Additionally, two further key trends observed in recent years are set to drive the evolution of the Canadian fintech ecosystem: 1) partnerships between fintech startups and incumbents, and 2) growing global ecosystem recognition.

In recent years, a significant increase has been observed in the number of fintech-incumbent partnerships, often designed to bolster differentiated products and services. Larger institutions have accelerated the ways and means in which they engage innovation partners, described in detail in the Canadian Financial Institution Ecosystem section below. Some, such as CIBC, Bank Leumi and National Australia Bank, have launched dedicated channels through which to accelerate the rate

at which they can partner and collaborate. The Global Alliance Fintech Link, for example, is designed to “streamline the partnership process for fintechs by providing clear visibility of the customer problems facing banks”.⁹ US-based companies and investors are already betting on this trend accelerating. Former CTO of Koho, Kris Hansen, departed the Canadian challenger bank in October 2020 to co-found a “marketplace”, Synctera, designed to bring US community banks and fintechs together. Canada is already on the company’s roadmap, according to executives.¹⁰

“Larger financial institutions are accelerating innovative partnerships.”

Finally, global attention and expansion plans have become a more common sight among Canadian fintechs. Seven Canadian companies recently appeared in CB Insights' global 2020 *Fintech 250* list.¹¹ Mindbridge AI and Trulioo were also featured in the World Economic Forum's Technology Pioneers of 2020.¹² Moka (formerly Mylo) exemplifies the global dynamic well. After being featured in KPMG's 2019 Fintech100 list, the savings app was chosen by the UK's Department for International Trade to join a trade mission to Britain.¹³ More recently, Moka announced plans to expand to France and beyond.¹⁴ The company's decision to swap names was a direct consequence of going global, with moka having fewer pronunciations and meanings across languages according to the CEO. Such commercial missions are becoming more commonplace for Canadian fintechs. The Finance Montréal cluster recently led a number of foreign trips to better connect fintechs of that city, while Toronto Finance International put out a call in October 2020 for fintech delegates to join virtual sessions in Tokyo, Singapore and the UAE.¹⁵

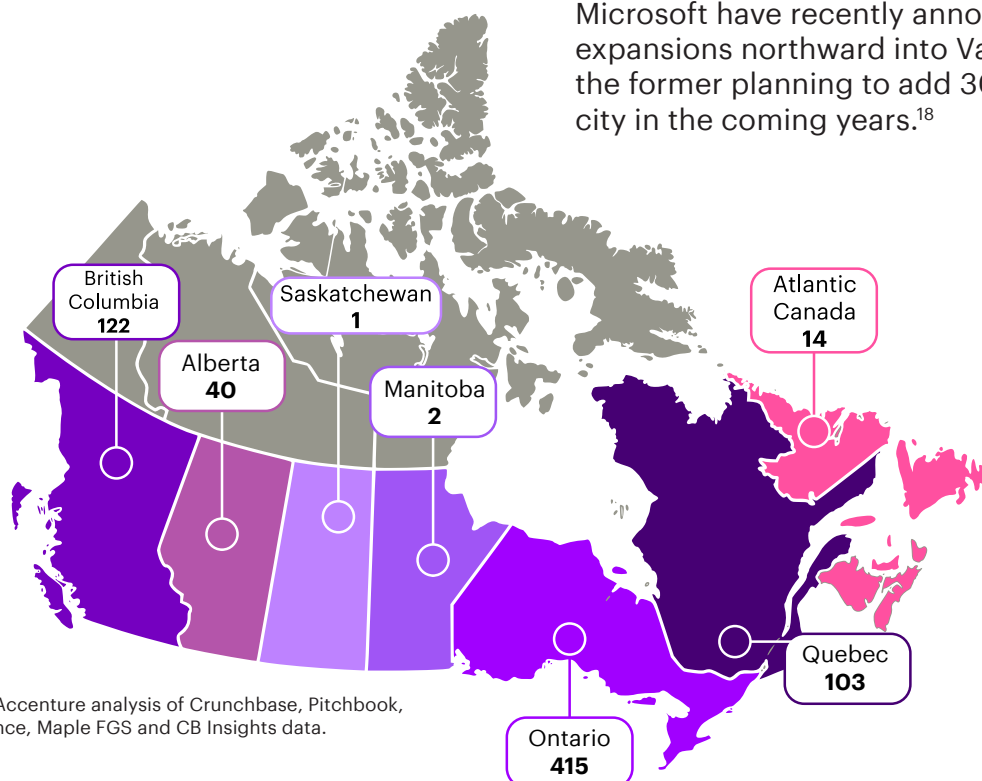
An Overview of Canadian Hubs Poised to Grow

As part of this report Accenture scanned the Canadian fintech ecosystem identifying nearly 700 fintechs across the country (see Figure 1.2). About 60% of these fintechs reside in the province of Ontario, with many of those occupying Toronto and the Kitchener-Waterloo corridor. Given the many new and exciting technology developments across Canada, below we highlight key developments outside of Southern Ontario.

Vancouver

British Columbia is currently home to over 120 fintechs, with Vancouver itself fast becoming a well-rounded technology hub. US-based Chime established their first international office in the city in 2020. The challenger bank cited the city's natural north-south disposition to American hubs as well as talent quality¹⁶, factors which Canadian executives and founders interviewed for this report reiterated. Other notable success stories in recent years include the likes of Hyperwallet, Grow, Trulioo, Koho, FISPAN and Mogo all announcing either major rounds of funding or exits. In early 2020, the federal government invited MasterCard to open its sixth global technology centre in the city, with a total planned investment of C\$510 million.¹⁷ Additionally, both Amazon and Microsoft have recently announced significant expansions northward into Vancouver, with the former planning to add 3000 jobs to the city in the coming years.¹⁸

Figure 1.2: The nominal distribution of Canadian fintechs in operation by region, 2020.



Source: Accenture analysis of Crunchbase, Pitchbook, FinCadence, Maple FGS and CB Insights data.

Calgary

Like Vancouver, Calgary's reputation as a fintech hub is a quickly growing one; 80% of Alberta's fintechs reside in the city. The city is already home to a well-rounded base of technology talent. Although Calgary has one of the lower concentrations of "digital" workers among Canadian cities, it has among the highest for overall technology employment, buoyed by the engineering talent working in the resources industry.¹⁹ The last few years have also seen provincial politics continue to play an influential role on the city's tech community and innovation economy.²⁰ Meanwhile, fintech activity is on the rise. Morgan Stanley's C\$1.1b acquisition of Solium Capital, and Symend's C\$73m Series B round, one of the largest in the province's history, are significant bright spots in the last two years.²¹ Helcim, who launched a proprietary payments stack in June 2020 to take on the likes of Stripe and Square, will be another Calgary challenger to watch.²² The city's fintech ecosystem ended the year on a high note after Neo Financial's CAD \$50 million financing round. The startup is seeking to build the country's newest neobank.²³

Montreal

With approximately 15% of Canadian fintechs located in the province of Québec, the Montreal area has become one of the country's leading fintech hubs. A driver of Montreal's track record has been the hub's growing slate of fintech-specific venture capital firms and accelerators. Investors Luge Capital, Diagram Ventures, Real Ventures, Ferst Capital Partners and the Holt Accelerator are among the most active in the industry. With corporate-backed interest on the rise, National Bank continues to actively invest through its NAventures arm while Desjardins Capital announced the launch of a C\$45 million fintech-specific fund in mid-2019.²⁴ Several major Canadian fintechs, such as Lightspeed and Nuvei, are headquartered in the city, which also benefits from academic and technical research institutions such as CDL-Montreal. The city's industry roundtable, Finance Montréal, rounds out the robust ecosystem as the purveyor of the annual Canada Fintech Forum conference, the



“Montreal has become one of the country's leading hubs.”

Fintech Station co-working space, and backer of the newly created AMF-Finance Montréal Research Chair.²⁵

Atlantic Canada

Collectively the Atlantic provinces made up one of the smallest hubs examined, with approximately 14 fintechs headquartered there. And yet there are many reasons to be excited about the future of East Coast fintech. Highlights include Canada's largest ever venture deal, at C\$515 million, going to St. John's-based fintech Verafin in 2019, followed by its acquisition by Nasdaq in late 2020 for USD\$2.75 billion.^{26,27} As part of the deal, Nasdaq committed to maintaining the company's St John's headquarters, as well as investing in local talent, R&D and corporate citizenship. Discussions with fintech founders and executives from the region revealed quality of life and cost competitiveness as top reasons for choosing Atlantic Canada as a home base.²⁸ Atlantic Canada is home to competitive talent when it comes to technical roles such as developers, especially compared to hubs such as Toronto and Montreal where recruits may be courted away by larger players. Given the region's highly trained, bilingual workforce, work-from-anywhere policies coming in the wake of the pandemic may spur further hiring activity and fintech growth in this region.²⁹

Canadian Fintech Verticals to Watch

As exciting developments unfold across the Canadian fintech ecosystem, three verticals are particularly well-positioned for growth given current market trends: RegTech (Risk), WealthTech, and personal financial management tools (PFM).

Recent drivers of RegTech adoption include pressure to reduce growing compliance costs, increasing technical debt, mounting practitioner workloads and rapidly evolving regulations. A recent study estimated that Canadian financial institutions spent over USD\$5 billion on AML compliance in 2019, with 96% of Canadian FI's indicating they expect cloud-based KYC utilities to provide standard support for these processes within five years.³⁰ It's little surprise then that Canadian RegTech startups such as Trulioo, Assent and Verafin have set funding records while achieving international recognition.^{31,32}

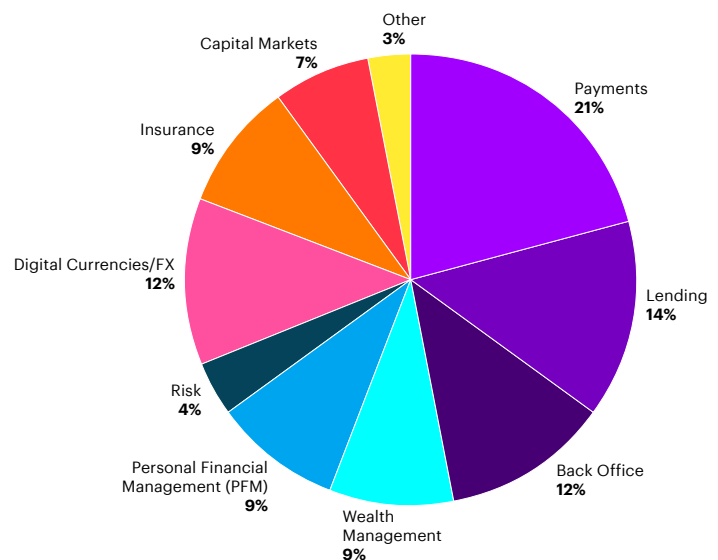
The Canadian ecosystem has also benefitted from an uptick in both retail and enterprise WealthTech activity. Fintechs are now looking across the investment value chain to simplify the end-to-end investment process, from manufacturers through to individual investors. Power Financial's Portag3 Ventures doubled down on this thesis in early 2020 with a C\$3 million investment in Conquest Planning, complementing their popular B2C portfolio company Wealthsimple.³³ CI Financial also added to their WealthTech stable via a partnership with analytics platform D1g1t, as well as the full takeover of Wealthbar in May 2020. National Bank followed suit by expanding their stake in competitor Nest Wealth in July. The industry may see consolidation and more strategic partnerships in this space in the near future, especially by institutions looking to rapidly build capabilities, reduce cost to serve and improve investor experiences.

The average Canadian household debt-to-income ratio now sits at over 170% as of Q3 2020.³⁴ Even prior to the pandemic, some

Canadians struggled to pay bills on time and manage monthly expenses; COVID has exacerbated these challenges.³⁵ In response, a complement of PFM fintechs have thrived in Canada to support customers, such as KOHO and Moka. Watch for more fintech-incumbent partnerships in this areas as well, both big (e.g. Sensibill and JPMC) and small (e.g. DUCA and Cacheflow) demonstrating the value that can be achieved by working together. As consumer early-adopters have demanded better digital experiences, the broader market may soon take notice of these powerful new tools designed to help manage financial wellbeing, especially in the wake of COVID.

The Payments, Lending, Back Office, and Digital Currencies verticals are still amongst the largest by number of Canadian fintechs (see Figure 1.3). However, fintechs operating in or across the RegTech (Risk), WealthTech, or PFM segments may be some of the best poised for future success in the coming years should these trends continue or accelerate.

Figure 1.3: The distribution of Canadian fintechs in operation by service offering, 2020.



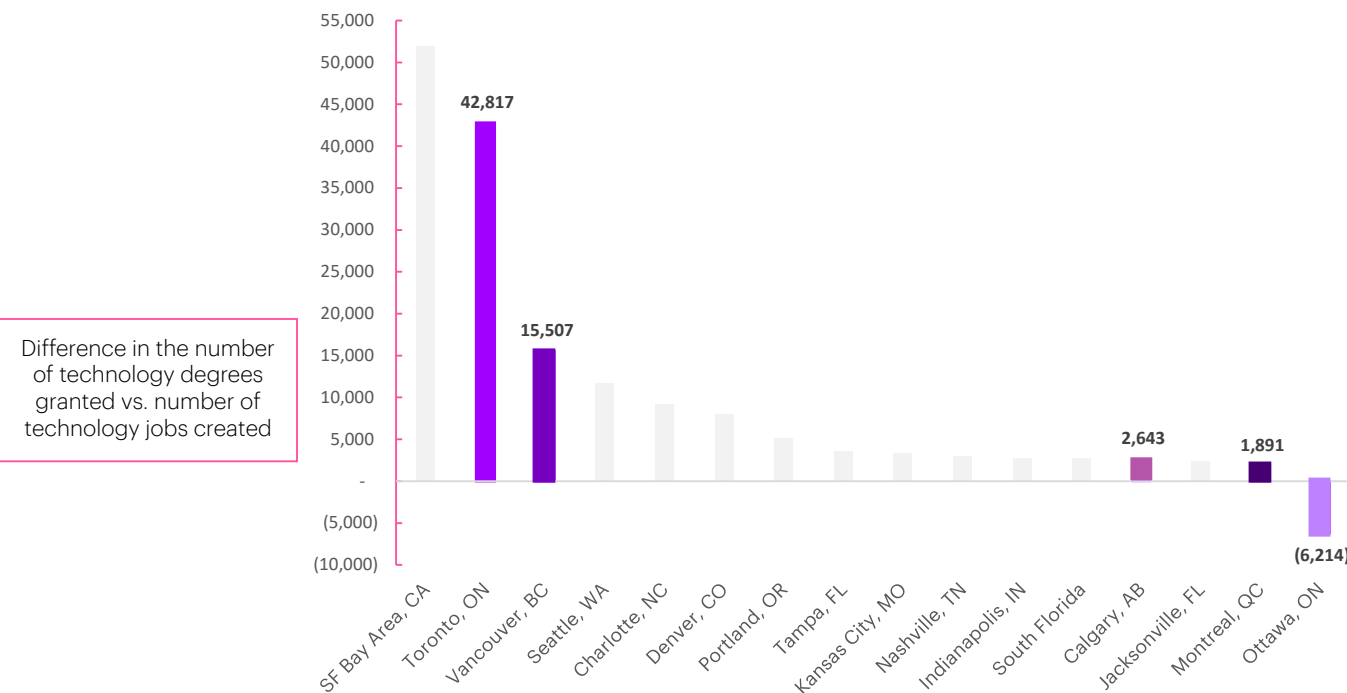
Source: Accenture analysis of Crunchbase, Pitchbook, FinCadence, Maple FGS and CB Insights data.

Canada is Benefitting from Fintech Brain Gain

CBRE Research recently ranked Toronto fourth in tech talent among 50 North American cities, after the Bay Area, Washington, D.C. and Seattle. Vancouver, Ottawa and Montreal all landed in the top twenty.³⁶ In particular, Toronto’s tech potential draws from its high ratio of “brain gain”, or the difference between a region’s number of technology jobs and the number of those technologically-educated there. By this measure, every Canadian city evaluated except Ottawa has achieved net brain gain over the last few years (see Figure 1.4).³⁷

While on the whole Canadian hubs are experiencing net brain gain, interviews with fintech executives as part of this report uncovered evidence that regrettable talent losses to American “Big Tech” companies are a popular concern, both at home and abroad.³⁸

Figure 1.4: Chart represents top 15 North American cities by net gain. Ottawa has also been included to provide a holistic Canadian perspective in-line with the other fintech hubs examined throughout this report.



Source: Figure 6, 2020 Scoring Tech Talent report, CBRE Research
Note: Chart represents top 15 North American cities by net gain, plus Ottawa

US tech leaders continue to expand their Canadian presence, such as Amazon's aforementioned Toronto and Vancouver office expansions set to add 3500 jobs across both cities.³⁹ While such expansion is a significant positive contributor to the Canadian economy and brain gain, it nonetheless increases local competition for talent. Some reasons cited by fintech executives for these regrettable losses included generous signing bonuses, secondary perks and brand prestige. Abroad, research by the Munk School of Global Affairs found that 25% of STEM graduates from top Canadian universities left Canada after graduation for work.⁴⁰ The rate is higher for certain professions, with nearly half of Canadian software engineering graduates employed outside of the country working for US companies such as Microsoft, Google and Facebook. Some growing fintechs attempting to bootstrap have cited this as a cause for concern, particularly when Canada has historically struggled to scale startups into true multinational leaders despite investments in public research and education.⁴¹ A common reason for heading south is higher compensation. Of the 50 cities analyzed in CBRE's *2020 Scoring Tech Talent* report, the five Canadian hubs examined came last for average wage, partly owing to the stronger US dollar.⁴² It's worth noting, however, that when adjusted for talent "quality", the same study found Canadian cities such as Vancouver and Toronto host among the highest value tech workers in North America.

A related theme identified during discussions with serial entrepreneurs and fintech executives for this report was the choice

to start abroad. Some Canadian fintech entrepreneurs are opting to first start their businesses elsewhere, tapping into larger markets, robust ecosystems and high-profile VC's before returning home. Popular markets to scale include the US and UK, where some fintechs maintain a permanent presence while acquiring top-tier international clients.

Even as more Canadian graduates choose to work abroad, data compiled by BDC shows that 2018 represented a five-year high for skilled foreign workers as a percentage of Canada's total population.⁴³ Canada's ratio has slowly edged up to 0.28% since 2013, representing a concentration nearly six times that of the US. This growing gap is attributable to Canada's progressive immigration policies relative to the United States, which have been lauded as "the most elaborate and longest-standing skilled labour migration system in the OECD".⁴⁴ Former US President Trump's decision to ban green cards and suspend H-1B visas in mid-2020 may have widened this gap further, with several US tech companies initially voicing concerns over the decision and Canada seizing the opportunity to court skilled foreign workers who may have suddenly found themselves stuck.⁴⁵ Regardless, continuing this momentum may now be especially important; Canadian immigration dropped off dramatically during pandemic travel restrictions, which have continued to linger well beyond America's tumultuous 2020 election season. Novel initiatives, such as virtual work permits, have already been proposed as possible workarounds until the situation stabilizes.⁴⁶

Canadian Fintechs Respond to the COVID-19 Pandemic

As the coronavirus swept across Canada, financial institutions were among those organizations forced to respond, adapt and innovate. The crisis weighed on some startups; 24% of those in Canada, including some fintechs, made the decision to lay off staff due to the virus' effects as of May 2020.⁴⁷ By June, some startups showed promising signs of rebounding by rehiring workers, while others focused intently on retooling their products and services to accommodate the new reality.⁴⁸ With digital at their cores, these fintechs have been among those well-positioned to support clients with the means to navigate the crisis (see Figure 1.5). In the short-term, some of these offerings may remain some of the best suited for continued physical distancing measures. Longer term, later adopters who have experimented with fintech during the pandemic (both B2C and B2B) may indeed become regular users, further increasing market share and driving growth.

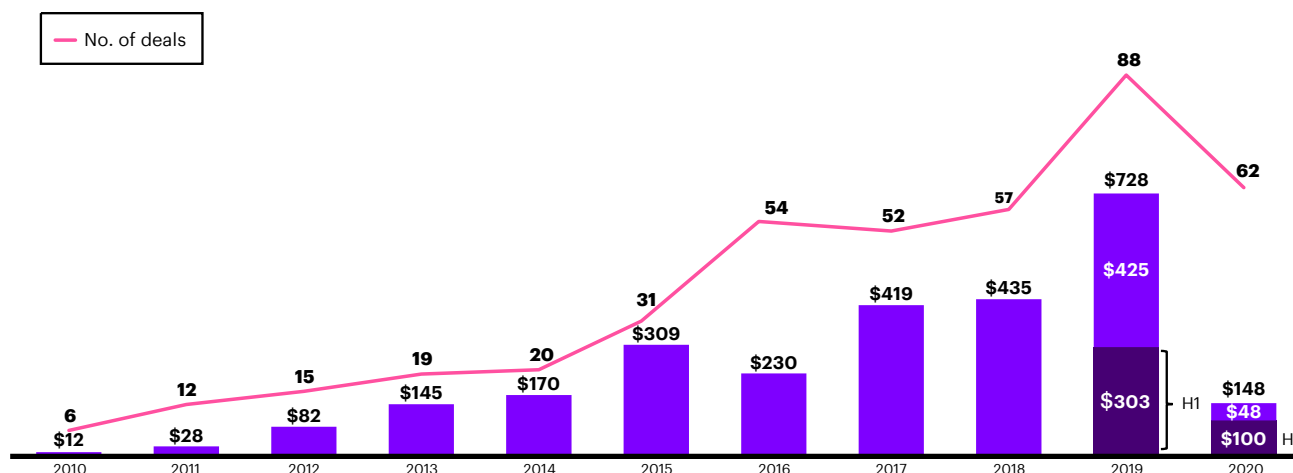
Figure 1.5: Selection of Canadian fintechs who pivoted their offerings to support customers impacted by COVID-19.

Fintech Description	COVID-related Challenges	Opportunities and Solutions
Borrowell: Helps customers make better decisions about credit.	Customers urgently seeking information about their credit standing, how to manage debt and stay on top of finances.	Accelerated the roll-out of a new tool called Boost which predicts upcoming bills to help manage cashflow, plus covers gaps with an interest-free cash advance. Also added a feature to ensure mortgage deferrals are captured correctly on one's credit report. ⁴⁹
Fundthrough: Online invoice factoring for small and medium-sized businesses (SMB's).	Many SMB's suffered a major loss of business and struggled with managing cashflow.	The company committed to waiving up to C\$10 million in fees for its SMB clients during the crisis. ⁵⁰
KOHO: Prepaid Visa with cashback, plus saving and budgeting tools.	Customers, particularly gig workers, needed quick access to cash and emergency response benefits.	Partnered with staffing platform Hyr to allow retail and restaurant workers using KOHO to access C\$100 of the Canadian Emergency Response Benefit up to three days early. ⁵¹ KOHO later piloted this feature across all their clients.
Boss Insights: Digitizes the commercial lending process while enabling insights.	Business borrowers reported confusion and difficulty accessing the US Paycheck Protection Program (PPP).	Boss Insights launched their CARES platform in May, specifically tailored to streamline PPP applications and credit calculations for both lenders and borrowers, who can connect their financial data directly to the platform via API's. ⁵²
Nesto: Allows borrowers to quickly search and apply for a mortgage online.	Prospective home buyers were challenged by the sudden lack of in-branch services available or preferred to remain socially distant.	While the Nesto platform itself reported a surge in use during the pandemic, the company also offered users and their family free access to Dialogue, a telemedicine app allowing virtual consultations with nurses and physicians. ⁵³
JUDI.AI: AI-driven loan adjudication platform for financial institutions (FI's).	FI's were required to rapidly evaluate credit applications and distribute millions in emergency funds to SMB's.	CEO Gord Baizley committed the startup to pivoting from their "short-term product roadmap" to help FI's accelerate the dissemination of the Canada Emergency Business Account. ⁵⁴

II. Canadian Fintech Venture Capital

As of Q3 2020, year-to-date venture investment across all Canadian industries totaled CAD \$3.5 billion - down nearly 26% in dollar terms as compared to Q3 2019 YTD figures.^{55,56} Now against the backdrop of COVID-19, venture capitalists are positioning their fintech portfolios for greater uncertainty in the short-term, while remaining confident in their companies' abilities to navigate the crisis and emerge stronger. Despite a drop in fintech investment last year, in the context of other industry trends discussed above, fintech talent is ostensibly well-positioned to seize new opportunities and spur further investment growth in the years ahead.

Figure 1.6: Total pre-IPO equity investment volume and dollar value, Canadian fintech companies, 2010 – 2020 (\$USD M).



Source: Accenture analysis of CB Insights data as of January 6, 2021.

Note: Investment value refers only to deals with amounts reported by CB Insights while deal volumes refers to all deals. Yearly volume of equity financing (pre-IPO angel, incubator, growth equity, seed, series A+ and private equity stages only) for fintech in Canada.

2020 Canadian Fintech Investment: The "COVID Effect" and Beyond

Discussions with leading Canadian VC executives throughout the pandemic revealed a confident, yet cautious, optimism surrounding the fintech investment environment and future ecosystem growth. Accenture analysis revealed 2020 Canadian fintech investment was set to decline to a seven-year low, nearly 80% from 2019 levels, in dollar terms (see Figure 1.6). Note this presents an especially stark contrast in part due to 2019's record levels of investment and the notable number of "mega-deals" (CAD \$50m+) which took place that year.

While some evidence pointed to initial investor interest in pandemic-resistant companies, this buzz ultimately failed to buoy overall Canadian investment in 2020.⁵⁷ Across all industries including fintech, while Q1 2020 saw a marginal decline from the previous year, the CVCA reported a surprising and significant rebound for Q2 as economies began to reopen across Canada; an overall record for the quarter.^{58,59} As lockdowns dragged on, however, Q3 2020 witnessed a 63% drop in dollar terms across all industries as compared to Q3 2019.^{60,61} Accenture analysis of recent fintech-specific deals revealed that the industry may have lagged even the broader Q2

rebound, with approximately USD \$100m in equity venture capital invested as of H1 2020 compared to USD \$301m in the first half of 2019 (see Figure 1.6).⁶²

Understandably, the valuations and exits of some major Canadian fintechs have been, at least temporarily, upended.⁶³ However, investor and government sentiment appears to be favouring a scenario where properly capitalized high-tech companies well-positioned before the crisis will emerge stronger once the dust settles.⁶⁴ Calgary-based fintech Symend's C\$73 million Series B round was the seventh largest overall Canadian VC deal in 2020. Meanwhile, payments processor Nuvei's September IPO closed at USD \$833 million, proving to be the largest ever for a technology company on the TSX at the time.⁶⁵

For VC-backed companies struggling during the fallout, BDC Capital was one of the first to roll out support in the form of its Bridge Financing Program, which aimed to support eligible startups impacted by COVID-19 in the form of convertible notes. As of mid-2020, BDC had completed 23 Bridge Financing Program deals worth C\$45 million, from a total budget of C\$300 million.⁶⁶ Export Development Canada (EDC) followed with a similar investment matching program, with five deals closed worth C\$15 million as of early June.⁶⁷ Although government approaches have varied at the provincial level, economic policymakers have broadly remained open and optimistic about technology investment playing a key role in Canada's recovery. Quebec Minister of Economy and Innovation Pierre Fitzgibbon revealed the province's plan to make significant direct equity investments in local firms, along with Ontario Minister of Economic Development Vic Fedeli's consideration of the Ontario Capital Growth Corporation's investment matching proposal.^{68,69}

It was noted during discussions with leading investors that while some deals were paused and funds temporarily retrenched to bolster their portfolio companies during COVID, investment philosophies have not fundamentally changed since the crisis began. However, attention was temporarily diverted to a few key areas. These included ensuring safe remote working conditions for VC teams, helping portfolio companies secure adequate runway, and executing cash conservation efforts or cost rationalization activities. The initial inability to conduct thorough, in-person due diligence and B2B sales in pre-COVID fashion was also cited as a common reason for slowed deal and sales cycle times.

Figure 1.7: A selection of notable 2020 Canadian fintech equity deals (CAD \$10 million+).



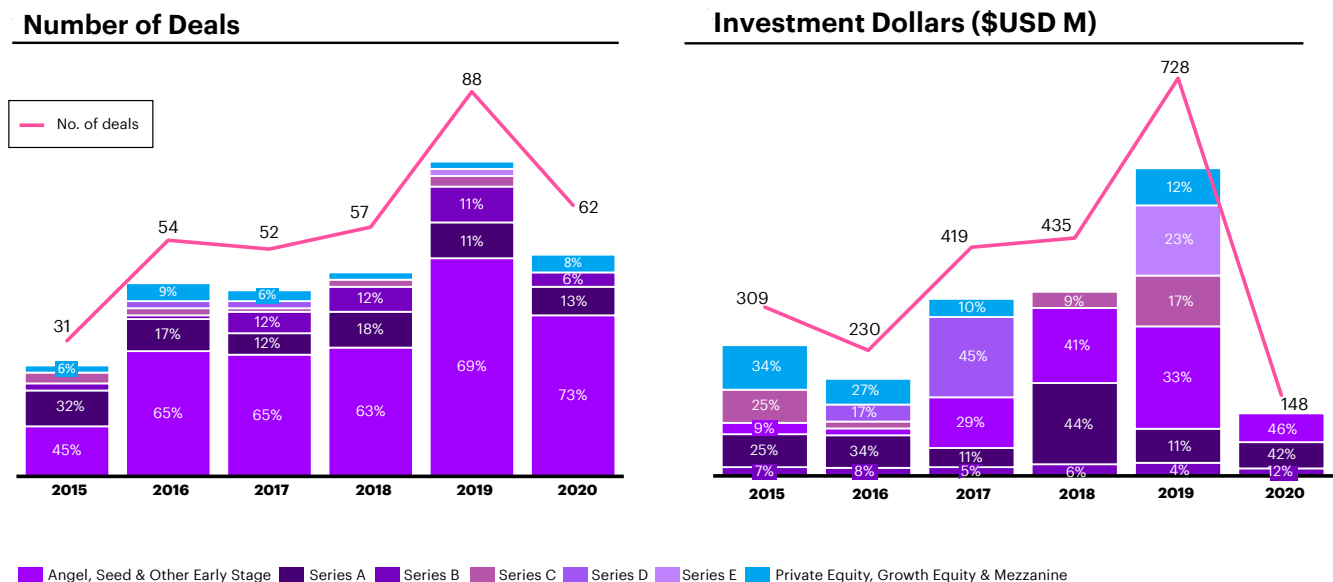
Source: Accenture analysis of Crunchbase data and publicly available deal information.
 Note: Certain deals have been excluded due to undisclosed terms, ownership structure or deal classification. NAVentures did not disclose the exact value of their July 2020 investment in Nest Wealth.

“The pandemic complicated in-person due diligence and B2B sales.”

As discussed above in the Canadian Fintech Overview, early-stage funding availability in Canada may pose ongoing challenges for nascent fintech startups. While the proportion of publicly disclosed early versus late-stage VC deals has edged up slightly over the last five years, 2020 early-stage funding declined considerably in dollar terms along with broader investment activity (see Figure 1.8).⁷⁰ The average size of angel, seed and other early-stage deals also decreased. For this reason, it will be important to observe how and when these deals recover to pre-pandemic levels as one possible indicator of future ecosystem recovery and strength.

Despite several funds focused on early-stage fintech emerging in recent years (see Figure 1.9), recent discussions with Canadian VC executives revealed that that newer companies will increasingly need to

Figure 1.8: Pre-IPO Canadian fintech equity financing distribution by round, 2015 – 2020.



Source: Accenture analysis of CB Insights data as of January 6, 2021.

Note: Investment value refers only to deals with amounts reported by CB Insights while deal volumes refers to all deals. Yearly volume of equity financing (pre-IPO angel, incubator, growth equity, seed, series A+ and private equity) for fintech in Canada.

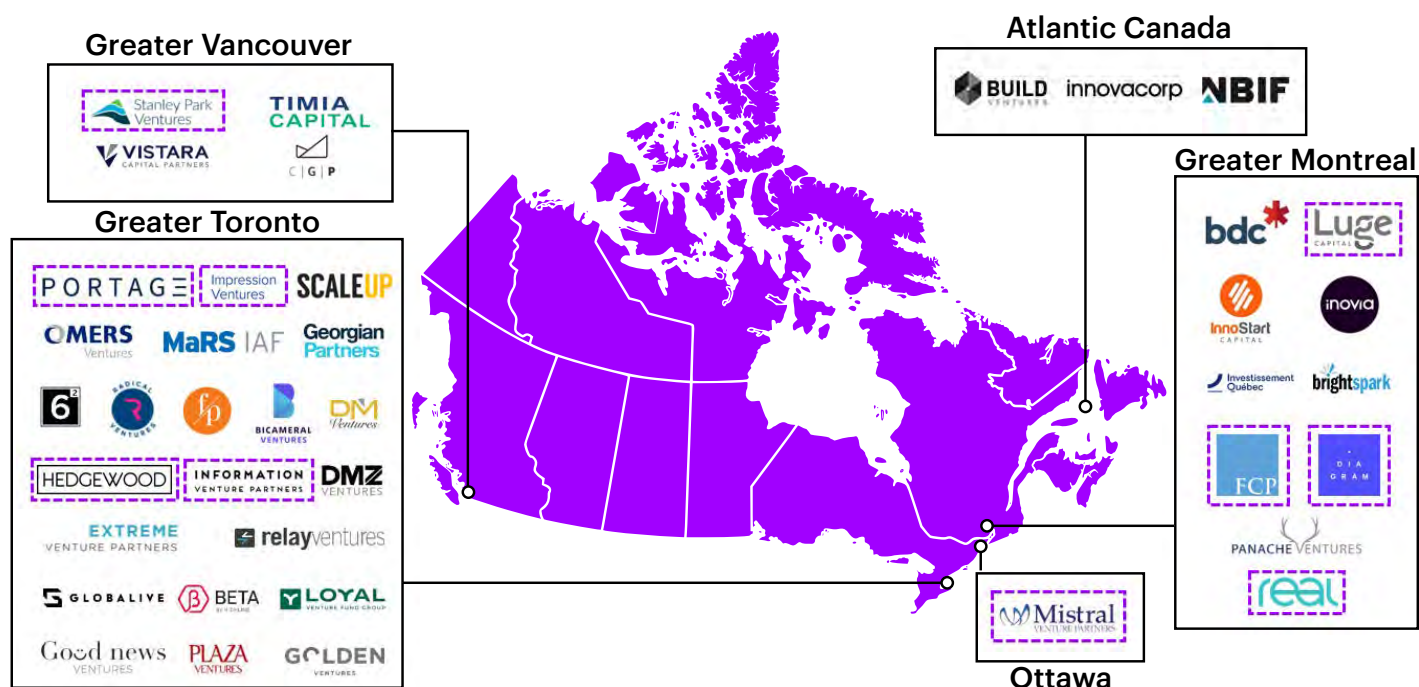
demonstrate a high degree of differentiation to generate interest.⁷¹ This could include factors such as managerial experience, technical talent and intellectual property, among others. This competition for early-stage funding may be one reason why the number of fintechs being founded is on the decline, although the subtleties of this trend are discussed in the section above. Regardless, combined with significant pre-pandemic cross-border investor interest in the Canadian market (see Figure 1.12), continued record valuations and exits for later-stage Canadian fintechs remain a distinct possibility beyond this unprecedented year. As the Canadian fintech ecosystem enters a possible period of “refinement”, young companies may find the near-term environment to be a challenging one, notwithstanding the lingering effects of the COVID-19 crisis.

Canadian Fintech Hubs and Leading VC's Are Growing From Coast-to-Coast

New venture capital firms and record-sized funds also emerged in 2019/2020, positioning Canadian fintech for further growth in an already burgeoning market.

Toronto is now home to Radical Ventures, a C\$471m fund with present investments in Sensibill and Drop, aimed at supporting startups with exponential disruptive potential. BDC Capital spinoff Framework Venture Partners also closed their first C\$100m fund in early 2019, with offices in both Vancouver and Toronto and investments in the likes of TouchBistro and Wave. On the corporate side, Montreal-based Desjardins Capital announced the launch of a C\$45m fintech-specific fund to better ground the institution, and its members, in the digital ecosystem.⁷²

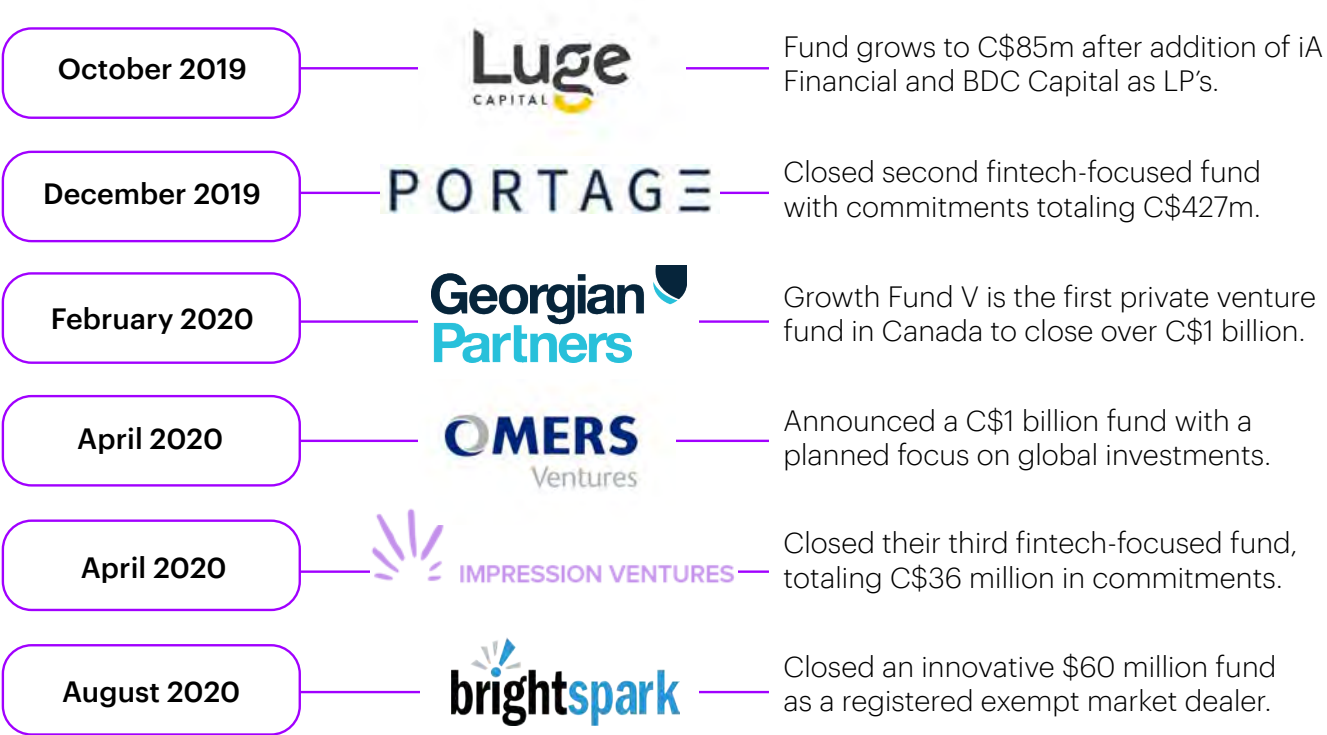
Figure 1.9: A selection of the most active non-corporate venture capital firms across Canada with disclosed investments in fintech. Those with notable focus on fintech in their portfolios are highlighted.



Source: Accenture analysis of Crunchbase investment data and publicly disclosed venture capital portfolios.
Note: Non-exhaustive.

At least six existing Canadian VC's with fintech investments also substantially grew funds or closed new ones in the last 18 months. Growing interest in the nation's market was also reinforced in 2020 as Canada gained its first private venture fund in excess of C\$1 billion (see Figure 1.10).⁷³

Figure 1.10: Notable fund growth or closure in the past 18 months by existing Canadian VC's with disclosed fintech investments.



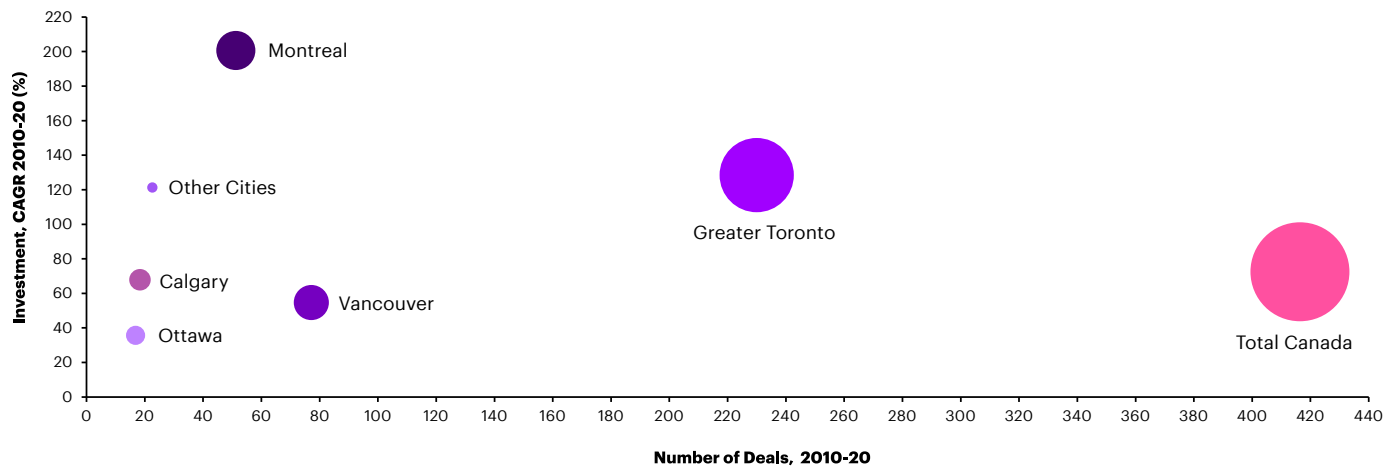
Source: Accenture analysis of Crunchbase investment data and publicly disclosed venture capital portfolios.

“In 2020, Canada gained its first private venture fund in excess of C\$1 billion.”

The Greater Toronto Area continued to lead other Canadian hubs in terms of 2020 fintech deal and dollar volume (see Figure 1.11).⁷⁴ Despite an impressive 128% cumulative CAGR since 2010, other Canadian hubs such as Montreal and Calgary are well on their way. Several fintech-focused VC firms now call Montreal home, while interest continues to mount in Calgary’s talented emerging tech ecosystem. Sustained investment in these hubs will be one important factor among many for the steady expansion of Canada’s reputation as a diversified fintech incubator. See the Overview of Canadian Hubs Poised to Grow section above for more details.

At a global level, Canada continues to be a beacon of academic and research strength, as well as technical and engineering talent. Together, various Canadian cities respectively boast the highest concentration of AI startups in the world, and have been the launch pad for respected institutions and programs such as the Vector Institute, Element AI, Mila and the Alberta Machine Intelligence Institute.⁷⁵ Cross-border investors who have taken notice have come to be an important source of capital for Canadian tech startups, including fintechs.

Figure 1.11: Cumulative fintech financing CAGR % vs. fintech deal volume for major Canadian hubs, 2010 – 2020. Bubble size is indicative of total relative deal value.



Source: Accenture analysis of CB Insights data as of January 6, 2021.
Note 1: Investment value refers only to deals with amounts reported by CB Insights while deal volumes refers to all deals. Yearly volume of equity financing (pre-IPO angel, incubator, growth equity, seed, series A+ and private equity) for fintech in Canada.
Note 2: Greater Toronto refers to the Greater Golden Horseshoe area. Vancouver includes the suburbs of Richmond and Surrey, as well as Victoria.
Note 3: Other Cities in Canada represent CAGR from 2014 – 2020 and include deals in Charlottetown, Edmonton, Halifax, Miramichi, Moncton, Quebec, Saskatoon, Sydney, Windsor and Winnipeg. See Appendix A for additional geographical assumptions

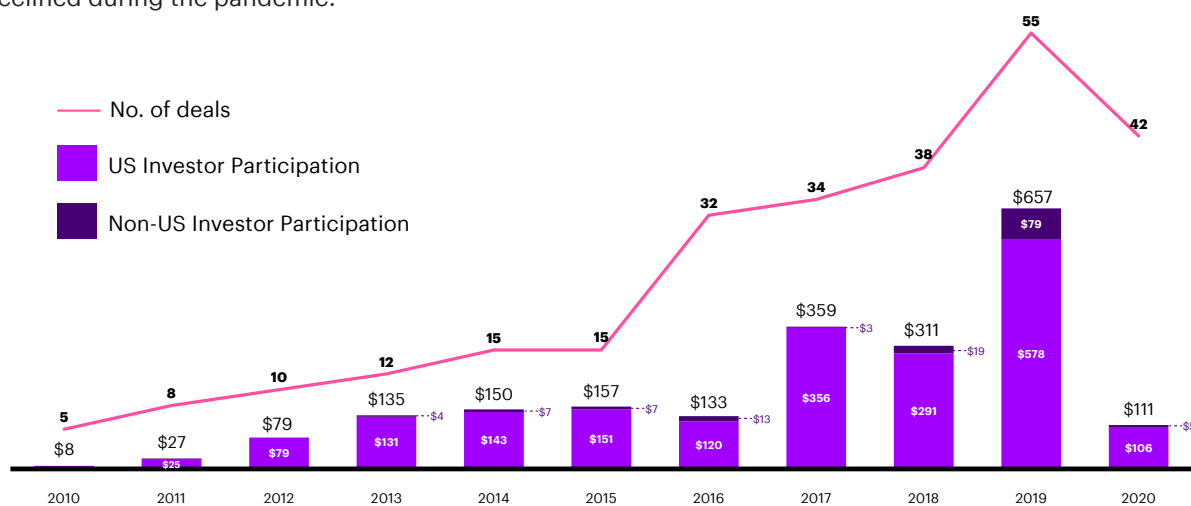
As investors responded to 2020's recession and adjusted to the new normal of closing deals remotely, US and other cross-border VC investment also declined (see Figure 1.12 below).⁷⁶ While Canadian fintech deals including cross-border venture capital interest hit a ten-year high in 2019, these deals declined in-line with the broader industry last year, falling slightly more at 83% year-over-year. American investors have remained the most prominent in deals including cross-border interests. The US participated in over 95% of 2020's cross-border deals and had the largest dollar contribution of foreign investors into Canadian fintech.⁷⁷

Assuming the global economy stabilizes over the next few years, Canadian venture capital executives surveyed for this report felt unconcerned by increasing foreign investor interest in Canada. Several differentiators were cited, such as domestic players' deep ecosystem roots, well-rounded understanding of the market and regulatory environment, and integration with value-added partners such as academia and startup accelerators.⁷⁸ On the contrary, some venture capitalists looked to the potential synergies made possible by investing alongside others with valuable expertise on offer for portfolio companies. Others saw healthy competition for deals as

a catalyst for certain benevolent ecosystem forces, such as increased global attention and talent attraction. This is particularly true of closing so-called Canadian "mega-deals", such as Verafin's record-breaking 2019 investment and eventual multi-billion-dollar sale to Nasdaq in November 2020, which involved cross-border interests throughout. Larger Canadian deals are a likely place for cross-border investors to start on the path to restoring previous levels of Canadian fintech investment, especially given similar global trends already unfolding elsewhere.⁷⁹

Putting aside any chronic impacts of the COVID-19 crisis, longer-term growth trends in Canada's fintech ecosystem may be shaped in part by the country's willingness and ability to take on a greater number of calculated bets. Such activity could be focused on both promising startups who can achieve global commercialization and scale, as well as on the critical underlying standards necessary for the further propagation of innovative, highly productive solutions in-market. Factors such as modern approaches to interoperability might be one possible step among others on the path to unleashing further Canadian fintech investment growth, from both domestic and cross-border sources.

Figure 1.12: Total Canadian fintech cross-border investment activity (deal and dollar volume), 2010 –2020 (\$USD M). While most cross-border investment into Canadian fintechs continues to include US-based interests, activity declined during the pandemic.



Source: Accenture Research analysis on CB Insights data.

Note: For targets headquartered in Canada. Non-US participation includes investors headquartered in South and Central America, Europe, Asia, Africa, Middle East, and Oceania. Deal types include pre-IPO angel, incubator, growth equity, seed, series A+ and private equity stages only. Includes deals with undisclosed investors.

III. Canadian Financial Institution Ecosystem

As Canadians familiarize themselves with new banking brands and digital financial services products, players are taking different approaches to standing out from the crowd. Two questions emerge: what might the future of technology partnerships look like in the Canadian market, and what are the implications for how banks serve customers today versus how they might serve them tomorrow?

Neobanking in Canada

To thrive in the competitive financial services marketplace, financial institutions (FI) have evolved so-called “neobanking” strategies and partnerships to help address gaps and complement core product offerings. Neobanks are characterized as those without physical branches that seek to meet the needs of customers predominantly through digital channels.

Globally, neobanks have quickly started to capture market share from the competition with an expected market size of USD \$450

billion by 2027 and CAGR of 48%.⁸⁰ The tailwinds of changing customer expectations and demographics, as well as regulatory shifts supporting greater interoperability, have fueled the growth of neobanks. Since Scotiabank’s refreshed launch of ING Direct’s former Canadian business as Tangerine in 2012, the landscape has become increasingly crowded with a variety of digital-only banks. We examine these neobanks below by categorizing them as either Canadian Banking Challengers, Canadian Digital Attackers or New Entrants.

Figure 1.13: A selection of neobanks with existing or planned Canadian operations.

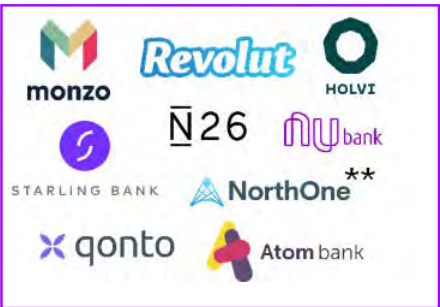
Canadian Banking Challengers



Canadian Digital Attackers



New Entrants



Source: Accenture analysis of publicly available data sources.

*Note 1: As of December 2020, neither Shopify Balance nor Wave Money had publicly available launch dates for the Canadian market.

**Note 2: NorthOne has relocated its headquarters from Toronto to New York, although it maintains a presence in both markets.

Canadian Banking Challengers

The Canadian financial services industry is seeing a rise in digital-only options from incumbent institutions. RBC has recently remarked on the bank's interest in launching a digital only bank in the US, which would make it the first Canadian bank to do so.⁸¹ Manulife Bank has also taken on a digital profile with the further development of their mobile and web platforms. And in September 2020, Loblaw announced the launch of the PC Money Account, an effort to rebuild the grocer's deposit-taking business with a keen focus on loyalty and rewards.⁸²

With 5.8 million Canadians using a credit union for their day-to-day banking needs, these community institutions have also started to launch digital offerings.⁸³ Figure 1.13 details some of the digital subsidiaries of credit unions such as Meridian and Alterna targeting provincial customer bases. Competition may heat up among Canadian financial institutions as they double-down on the digital-only customer as a key strategic initiative.

Canadian Digital Attackers

The Canadian Digital Attackers are a group of homegrown companies whose beginnings were independent of larger, chartered banking institutions. Some savvy customers have come to expect the familiar experiences provided by tech giants such as Apple, Netflix and Amazon from their bank as well. In turn, each of these fintechs have taken a unique approach to addressing this desire. On the retail side, KOHO, Mogo, Neo, Wealthsimple, Stack and Wingocard have sought to bring a simplified product suite to clients wrapped in a modern user experience. On the small-medium business front, Shopify and Wave recently announced business banking products for their existing e-commerce and accounting customers, respectively.

New Entrants

Jurisdictions such as the UK, EU and Australia have begun to embrace policies that support greater openness and increased competition in financial services. The North American market has thus become a target for the more mature and well-funded among retail

fintechs in those hubs such as Monzo, N26 and Revolut. Revolut had begun to test their platform in Canada towards the end of 2019, although the pandemic upended some of these challenger banks' plans and created significant uncertainty given profitability challenges.^{84,85} Even prior to COVID, New Entrant operations were often confined to a limited number of products and services, such as prepaid cards and payments.

Entering, Competing and Partnering in the Canadian Financial Services Marketplace

As possible regulatory changes portend the evolution of market dynamics between various players, market participants are leveraging different approaches to take part in the action.

While incumbent-backed Banking Challengers have emerged to answer the call of changing customer expectations, Digital Attackers - such as Wealthsimple and Neo - generally rely on insured Canadian partner institutions to facilitate parts of their business. In Wealthsimple's case, Vancouver-based Peoples Trust backs the fintech's deposits. New Entrants offering prepaid credit cards and transfer services to Canadians, on the other hand, are exempt from some of these regulations as long as they remain non-deposit takers. While this strategy has been an important part of ensuring speed to market, it may ultimately place limits on future product and service differentiation among competitors. One example of lowering this barrier to entry is the UK and EU's licensing program for fintechs wishing to hold e-deposits and issue cards, so-called Electronic Money Institutions (EMI). On the other end of the spectrum some US Digital Attackers have opted to acquire existing chartered banks as a path to market, such as Jiko, who recently became the first fintech to complete a takeover of a national US bank.⁸⁶ Where willing and able, New Entrants are also directly pursuing banking licenses; Revolut recently announced their intention to acquire a state banking charter in California.⁸⁷ It remains to be seen how, or if, similar trends may play out in the Canadian marketplace.

On the business banking side (covered in *Part 2: The Digital Race to Serve Small and Medium-sized Businesses* section below), Digital Attackers such as Shopify and Wave have emerged to simultaneously converge on new products. Already mainstays of their expansive commercial customer bases, these new entrants are seeking to disrupt traditional small-medium business (SMB) banking and advisory by providing value-added current accounts, cards and rewards programs. Both companies have made plans to first pilot and launch these services in the US. Shopify Balance will be powered by both Stripe's Treasury product and Evolve Bancorp, respectively.⁸⁸

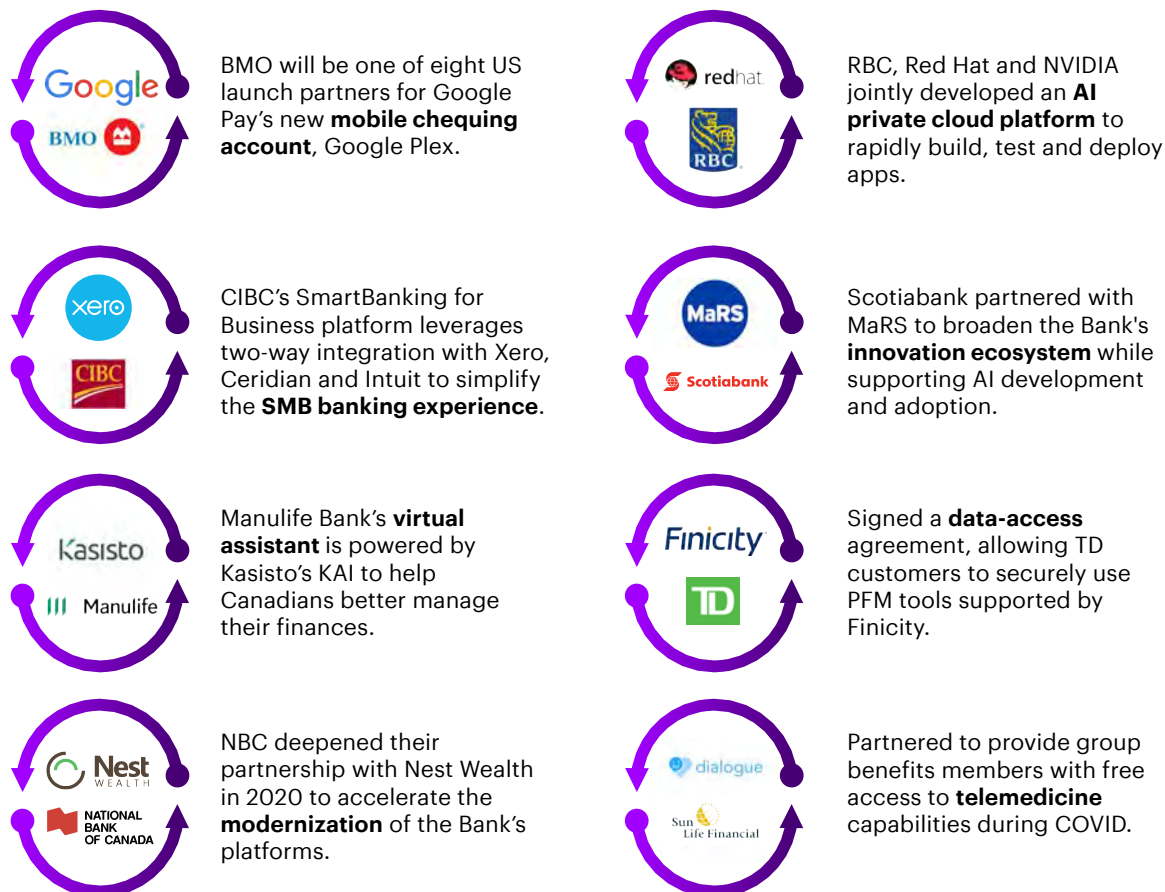
Finally, many successful Canadian financial products are the result of esteemed partnerships between FI's and technology companies. As the lines of competition continue to blur, larger institutions are increasingly looking strategically to fintechs and other technology upstarts to augment

their capabilities and incubate ideas. In lieu of an outright acquisition, established players are now also opting to refer clients to formal partners offering more suitable services or licensing white-labelled technology to elevate the customer experience. For example, Toronto-based Sensibill distributes its receipt management solution through several of Canada's major FI's, as well as a number of large American institutions.

Financial Services Partnership Trends in Canada

At the 2020 Scotiabank Financial Summit, several Canadian bank executives cited strategic fintech partnerships and ongoing technology transformation work as sources of strength during, and beyond, the COVID-19 pandemic.⁸⁹ Below, we discuss a non-exhaustive selection of these publicly-disclosed partnerships, as well as a number of ways the partnership ecosystem is evolving in Canada (see Figure 1.14).

Figure 1.14: A selection of notable partnerships between Canadian financial institutions and fintech ecosystem participants.



Source: Accenture analysis of publicly available data sources.

Accenture examined nearly 100 publicly disclosed partnerships from the past five years spanning over 20 Canadian banks, insurers and credit unions to identify key collaboration trends. In combination with insights drawn from discussions with industry executives, several key themes emerged.

Firstly, fintechs are increasingly “enterprise-ready” as compared to even just a few years ago. Given major Canadian banks’ market share and overall consumer trust in the financial system, the country’s B2C challenger banks are still relatively modest in size as compared to their US and European counterparts. This may be one reason why both founders and investors have given a slight edge to those startups with business clients in recent years. B2B-focused Verafin and Nuvei have respectively broken records for the largest Canadian VC deal and largest technology IPO on the TSX in the last year, for example.

Second, several companies, such as Kasisto and Sensibill, are making inroads by spanning multiple financial institutions with white-labelled offerings, often unbeknownst to end users. More formal consortiums, such as the one being built by SecureKey to authenticate users across institutions, are going beyond customer experience transformation. Such partnerships and consortiums are proving to be a successful means to piloting solutions to ambitious technology challenges, such as digital identity, without building the technology from scratch.

Finally, fit-for-purpose partnerships are being forged to fill strategic capability gaps. Across the board, FI’s are leveraging both fintechs and industry agnostic technology companies to access new markets, provide value-added services and elevate the customer experience for Canadians. In fact, of the partnerships examined by Accenture, about half originated with technology companies not exclusively serving the financial services industry. RBC Ventures, one of Royal Bank’s strategies to go “beyond banking”, is leveraging strategic investments to tap into this trend. CEO Dave McKay recently referenced the ventures arm

when asked about Royal Bank’s displacement as the most valuable Canadian company by Shopify in 2020, calling it a defense against “potential disruptive plays” in the future.⁹⁰

As banks move increasingly towards becoming technology-first companies, one of the most popular types of FI partnerships today are those with data and insights companies. Firms such as Flybits, MX and Flinks are helping banks make sense of complex data and the associated plumbing. Consumer-facing brands such as Dialogue Health are also giving FI’s alternative, value-added ways to engage with their clients while capturing valuable customer referrals or analytics.

Looking Ahead: Ecosystem Banking in Canada

As technology-first solutions proliferate within Canadian FI’s, specialized players such as Shopify are converging into financial services. Looking ahead, Canada may be primed for increased adoption of so-called ecosystem banking. This strategy, one slowly being adopted in different ways by global banks as it is predicated on their strength as trusted brands, is based on developing a suite of products and services that complement core offerings in many ways.

Singapore’s DBS Bank was an early purveyor of one of these ecosystems. Since 2018, DBS has launched four different marketplaces that introduce third-party technology, products and services designed to complement DBS’ core business.⁹¹ Importantly, customers of these marketplaces do not need to be customers of the bank to use the various services, which include:

- **Property** – Plan, search, buy and sell property
- **Travel** – Plan, search and book travel, hotels, and tours
- **Auto** – Search, buy and sell vehicles
- **Electricity** – Compare, switch and save on energy plans

To enable each of these marketplaces DBS has partnered with a shortlist of third-party services, with the bank offering lines of credit, mortgages, insurance, and payment processing around them.



“Exciting opportunities may emerge at the intersection between incumbent and fintech strengths.”

Canadian retail financial services clients are beginning to benefit from similar thinking from Canada's own digital attackers as well, with companies such as Wealthsimple and Stack beginning to push the partnership boundaries in creative directions. In many ways the common direction appears to be one that leans outside financial services. While both of these successful startups have built large customer bases around their core businesses, each has continued to differentiate with a variety of lifestyle partnerships and social elements appealing to their target clients. In August 2020, Stack launched Stack Travel, offering 20% cashback through their booking service. The industry may see these nascent ecosystems develop, mature and become increasingly “sticky” as Canadian Digital Attackers scale alongside incumbent institutions.

With Canadian regulations and consumer behaviour evolving, competition for the country's banking clients may begin to accelerate. Given Canada's strong and trusted financial system, the most exciting developments may take place at the intersection between the strengths of incumbents and those of fintechs. The potential outcomes, including highly innovative partnerships, new digital offerings and increased transparency, are ones which could significantly benefit Canadian financial services consumers while strengthening the overall system.

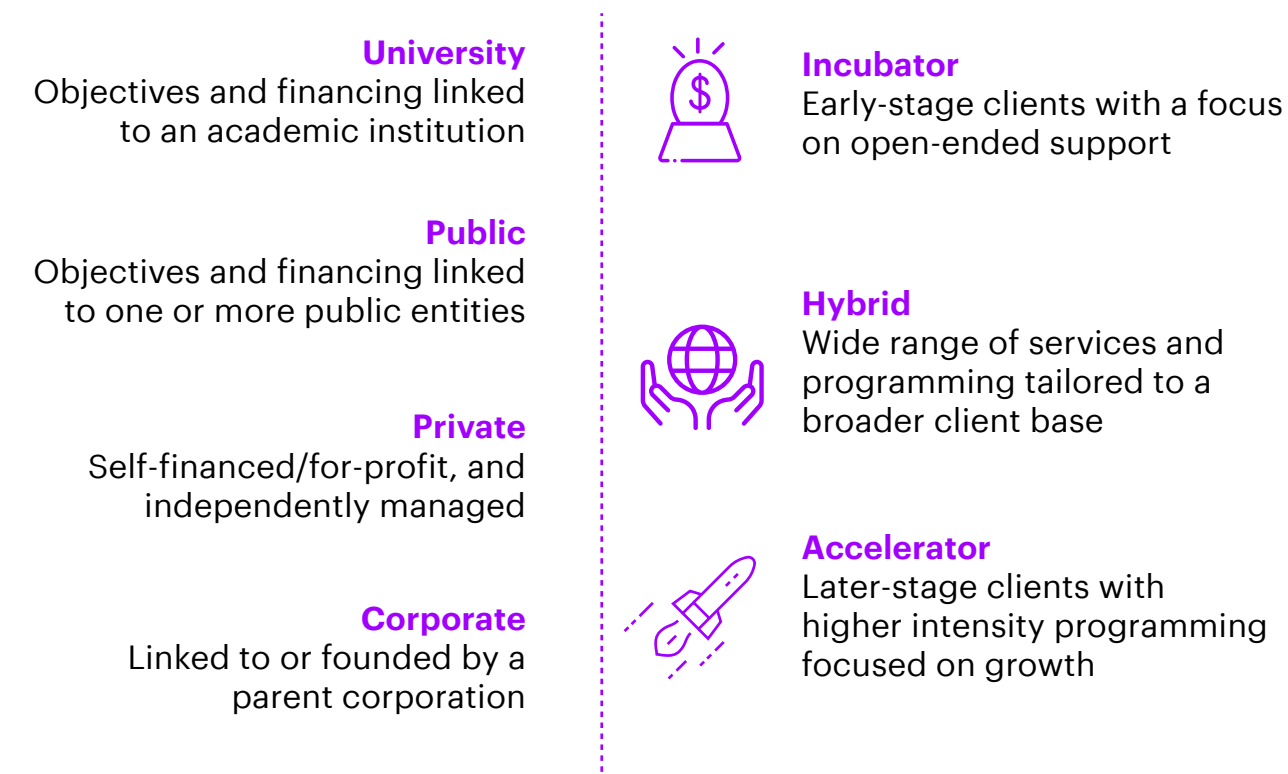
IV. Canadian Incubator and Accelerator Landscape

As international incubators and accelerators looked to expand their programs to Canadian cities with strong talent bases, the country has had to deal with the impacts of COVID-19. This part of the fintech ecosystem will react strategically to the long-term implications of an increase in corporate innovation hubs, untested virtual delivery models and rapidly changing social trends.

Understanding Incubators and Accelerators

The business world can seem uncertain even for sophisticated entrepreneurs. Particularly in financial services, navigating the complexity of this highly regulated industry at speed has created a strong need for incubators and accelerators, who play a pivotal role today by supporting the development of new products and services. Incubators, accelerators and hybrid programs all aim to support startups, however each in a slightly different manner. We define these institutions in their various forms in Figure 1.15.

Figure 1.15: Incubators and accelerators each have a distinct mandate, with funding driven by one of four general types of operating model.



Source: UBI Global World Benchmark 19/20 Report, Accenture analysis.

The Canadian Incubator and Accelerator Ecosystem Today

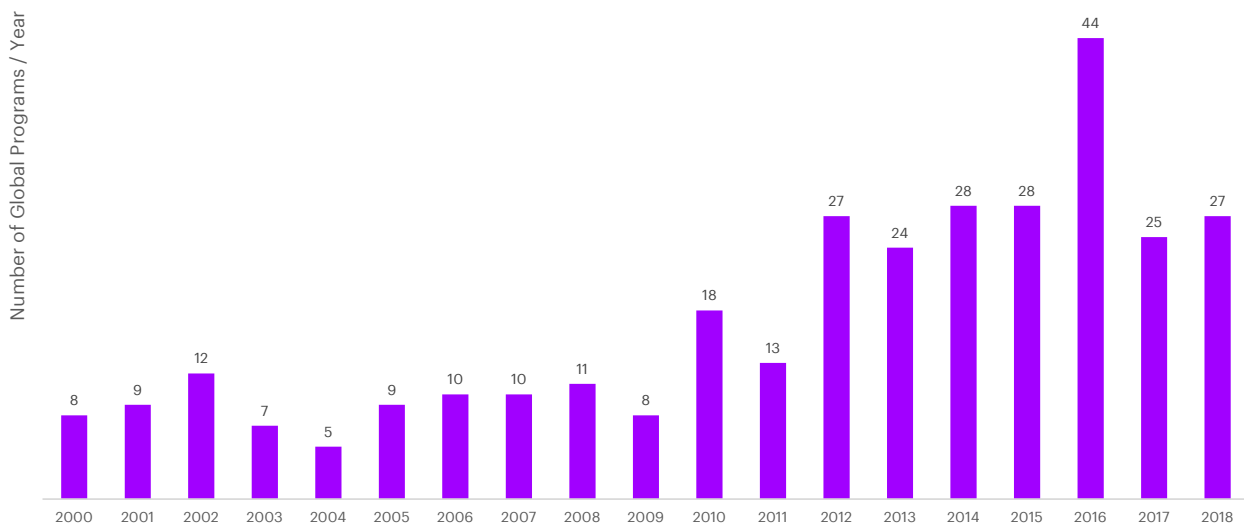
Many new and innovative programs have emerged globally within the last decade, including in Canada (see Figure 1.16).⁹²

Part of this domestic growth has been the result of the federal government's Canadian Accelerator and Incubator Program (CAIP), to "establish a critical mass of outstanding accelerators and incubators that can develop innovative, high-growth Canadian small and medium-sized enterprises".⁹³

It's also worth noting the strength of Canada's university-backed incubator ecosystem, with five programs in UBI's 2019/2020 Global Top 20 University Business Incubator list, the most of any country: Centech ÉTS, DMZ at Ryerson University, McGill's Dobson Center For Entrepreneurship, TEC Edmonton and the University of Toronto Entrepreneurship program.⁹⁴ Canada also boasts one accelerator in UBI's Global Top 5 University Business Accelerators (York University's YEDI) and one Private Accelerator in the Global Top 5 Private Business Accelerators (Waterloo-based Accelerator Center).

"Canadian incubators claimed five spots in UBI Global's latest Top 20 rankings."

Figure 1.16: The number of incubator and accelerator programs established annually around the world has slowly edged up since 2010. Younger programs (those in existence for < 10 years) continue to perform well in global rankings.



Source: UBI Global World Benchmark Report, 19-20

Canadian Incubator and Accelerator Trends

The Proliferation of Corporate-backed Accelerators

Canada has seen a rise in corporate accelerator programs over the last decade, with Canada's banks being no exception. Innovation arms such as TD Labs, CIBC Live Labs, and RBC's partnership with Reach have propelled those businesses forward and added to the institutions' abilities to design, build, test and launch new products and services.

In July, Intuit Canada and the Highline Beta VC jointly revealed the *Intuit Prosperity Accelerator*, whose inaugural cohort included seven Canadian fintech companies. Each was selected for the four-month program to pilot a solution focused either on helping Canadians better manage their finances or improving SMB operations, "during COVID-19 and beyond".⁹⁵

Non-FI's are also seeing opportunity in Canada. Google recently launched a startup accelerator in Waterloo, Ontario, their first in Canada and 12th worldwide.⁹⁶ The three-month *Google for Startups Accelerator Canada* program, while not fintech-specific, will offer mentorship, boot camps, and non-dilutive financing to 9 early-stage startups in late 2020 to help them raise later-stage funding.⁹⁷

Commercial real estate (CRE) services firm Colliers International also supports innovation via their Toronto-based property technology (PropTech) accelerator powered by Techstars. While the 2020 edition of the program was postponed due to COVID, Colliers doubled down on their commitment by working closely with former graduates early in the year to develop virtual solutions for clients suffering from the crisis.⁹⁸ For example, one of these startups, Finneo, enables brokers to engage virtually with Canadian lenders, an important capability for asset owners dealing with the adverse effects of the virus.⁹⁹

These examples of corporate interest in incubator and accelerator-like programming are a key reason for the growth of this ecosystem in Canada. Startups now have

greater access to competitive programming than ever before, while large enterprises are quickly discovering the benefits of identifying and integrating disruptive technologies into their businesses early and often. The ecosystem may see an increasing proportion of corporate innovation being driven by private, world-class Canadian incubator and accelerator programs such as these.

Increased Interest from International Incubator and Accelerator Programs

Toronto continues to garner attention as a well-rounded technology hub, with high-quality talent choosing to settle in the city amongst a growing number of tech jobs.¹⁰⁰ In turn, Canadian cities are receiving increasing international attention from incubators and accelerators based in the US and abroad, with talent being supported by world-class universities, progressive government policies, and a track record of successful startups.

One example is Acceleprise, a San Francisco-based SaaS accelerator which launched a program in Toronto in January 2020.¹⁰¹ By June, Acceleprise CEO Micael Cardamone commented that the program's first Canadian cohort "massively exceeded [his] expectations".¹⁰² Plug and Play, a prominent Silicon Valley accelerator and an early investor in Google, PayPal, Dropbox, also chose to expand to Canada last year with their Mississauga office.¹⁰³

These examples appear to validate the potential opportunity in Canadian fintech hubs. Such programs may become an even more important channel for homegrown businesses to access international markets and investors in the future. Underpinned by Canada's strong talent foundation, this growing attention from sophisticated accelerator programs and investors may create a virtuous cycle for fintech, driving further talent attraction, investment and growth.

Increased Incubator and Accelerator Ecosystem Involvement

As an important part of a much more expansive fintech community, incubators and accelerators are also increasing the depth and breadth of their engagement with corporates, investors and academia. Particularly as COVID-19 affected Canada, these programs proved an ability to quickly coordinate various ecosystem players, to the benefit of startups and communities at large.

The Creative Destruction Lab, founded at the University of Toronto, launched CDL Recovery, a rapid response innovation program to accelerate products and services addressing current health and economic challenges resulting from the crisis.¹⁰⁴ In April, the private, Waterloo-based Accelerator Centre also launched their COVID-19 Support and Recovery Cohort, a seed funding program supporting Ontarian researchers and companies by providing up to \$30,000 in seed funding and \$10,000 of in-kind business supports for pandemic-related technology solutions.¹⁰⁵ The fintech-focused Holt accelerator in Montreal also recalibrated their programming in 2020 to solve for pandemic-related challenges. Two Canadian startups were represented in the fully virtual accelerator that kicked off in July.¹⁰⁶

As COVID has challenged Canadian communities, these initiatives may be the catalyst cementing the role of incubators and accelerators in the startup ecosystem. Such programming may also lead to broader public understanding of the role of these organizations and the tools and services available to entrepreneurs. As programs propagate, greater cross-functional benefits may arise from new partnerships, with an increase in bespoke client services as delivery efficiency grows.

Looking Ahead: Trends Shaping the Future of Canadian Incubator and Accelerator Programs

Consolidation and Shifting Business Models

Incubators and accelerators were among the organizations affected by the economic uncertainty brought forth by the COVID-19 pandemic, which forced at least one major private incubator in Canada, OneEleven, to shut down.¹⁰⁷ Initially founded as a not-for-profit by Ontario Centres of Excellence (OCE), Ryerson University and OMERS Ventures, OneEleven was later privately incorporated by Oxford.¹⁰⁸ Public and private bids were submitted in June seeking to revive the organization under various proposals; however, Oxford confirmed in August it would transfer the OneEleven brand to OCE at no cost.¹⁰⁹

Shortly after, Ryerson University's DMZ announced a merger with the University's venture capital arm, Ryerson Futures Inc., rebranding the organization to DMZ Ventures.¹¹⁰ Ryerson President Mohamed Lachemi noted at the time that Ryerson is now "one of the only universities in Canada that can offer companies the full spectrum of support at every stage from ideation to actively participating in the economy".

The impact of COVID combined with the rise of new program entrants may mean incubators and accelerators reimagine some aspects of their organizations and business models. For programs partly or wholly reliant on public funding, delivering in increasingly efficient ways will likely be critical, particularly in the wake of 2020's economic environment. For privately funded institutions, cashflow, corporate expectations and the realities of startup success may also prove challenging. While some VC's have experimented with offering accelerator-like "full-service" support to portfolio companies, such models have been met with mixed success in Canada.¹¹¹ Thus, with innovation at their core, these institutions will more than likely find ways to continuously reinvent themselves. Beyond the pandemic, incubators and accelerators will likely remain fit-for-purpose while further anchoring the broader ecosystem.

The Rise of Virtual Program Delivery

Given that a significant portion of incubators' and accelerators' perceived value pre-COVID was driven by physical, shared spaces and in-person events, the virus has accelerated an emerging trend of virtual program delivery. March and April witnessed many top-tier programs such as Y Combinator and Techstars alter their delivery formats, citing the implications of the outbreak.¹¹²

However virtual programming is not new, and theoretically enables incubators and accelerators to cast a wider net and appeal to a broader set of competitive startups while spreading costs out. By the end of May, Ryerson's DMZ had launched a fully virtual incubator program in partnership with the Town of Innisfil, north of Toronto.¹¹³ With a local population of under 40,000, delivery models such as DMZ Innisfil's virtual incubator will be important tests of the long-term desirability of offering digital curriculums, mentorship, networking opportunities and investor meetings outside traditional metropolitan areas where maintaining a physical presence may not otherwise be feasible.

“COVID-19 will be an important test of the long-term desirability of digital curriculums.”

Demand for Socially Responsible Programming and Investment

The #MeToo, Black Lives Matter, and Truth and Reconciliation movements, among others, have ascended across all levels of society and captured attention globally. As a result, incubators and accelerators are seeing an increase in purpose-driven programming and investors, as well as qualified startups whose missions center on social responsibility.¹¹⁴

For example, the DMZ's Black Innovation Fellowship (BIF), launched in May 2019, has already supported ten black-owned startups, five with female founders (Accenture is a program partner). Public BIF commitments included \$250,000 from the City of Toronto in July 2020.¹¹⁵ Other progressive incubators are quickly taking the form of largescale global communities, such as SheEO, which launched in Canada in 2015 and now operates in five countries with the goal of supporting women-led ventures the world over.¹¹⁶ Likewise, Ottawa's Impact Hub is part of its own global community of 15,000 members and counting, with programming focused on social innovation.¹¹⁷

As movements for greater social awareness grow, incubators and accelerators may be some of the best placed within the innovation ecosystem to help entrepreneurs from underrepresented groups break into industries such as fintech. Moreover, fintechs focused on underserved niches are already beginning to emerge; Daylight, a US-based digital bank focused on LGBT+ clients, launched in November 2020. Incubator and accelerator programs represent physical and virtual hubs which can catalyze outcomes by being the common thread between governments, private business, academia, investors and forward-thinking entrepreneurs. It's in this context where the best ideas, judged on their merits and commercial viability, may be well-placed to bubble to the surface.

V. Government and Public Sector Ecosystem

Given Canada's reputation for economic stability, regulators have taken a cautious approach to new financial services legislation since the 2008 financial crisis, and this approach extends to fintechs. As leading fintech hubs around the world have accelerated the roll-out of their innovation frameworks, Canadian policymakers will need to decide how this country, too, intends to promote greater collaboration among ecosystem participants. Complicating matters, of course, is the coronavirus, and the accelerated demand for digital and virtual technologies it has brought along with it.

Laying the Foundation: Fintech Sandboxes and the Merits of Open Banking

Several important government and regulatory efforts have materialized over the last few years, forming the context within which financial services technology is propagating in Canada. We cover a select few of them in the following section.

The culmination of the Competition Bureau's three-year investigation into the state of the financial services ecosystem provided guidance to policymakers on how to maintain equilibrium between innovation and consumer protection. Ultimately, these recommendations laid the groundwork for the government's latest reviews into the merits of open banking.¹¹⁸ They included a finding that regulators shift from "entity-based" regulation to "function-based" regulation, while also recommending policymakers encourage greater access to core financial infrastructure for various ecosystem players.¹¹⁹ Such recommendations are beginning to take shape; last year Payments Canada announced in November it had selected UK-based Vocalink as a key technology partner for Canada's real-time rail (RTR).¹²⁰ The Mastercard-owned payments company will provide the clearing and settlement component for RTR, the country's first P2P real-time payments system.¹²¹ As such modernization accelerates, a greater number of innovative overlay services may soon hit the Canadian market, tapping into this new functionality.

2020 was also an active year for the Canadian Securities Administration's (CSA) Fintech Regulatory Sandbox. This initiative offers smaller firms the opportunity to test their products in the Canadian marketplace with exemptive relief from the most burdensome of regulatory requirements.¹²² In August, Wealthsimple was given the green light to test its new cryptocurrency trading platform.¹²³ Wealthsimple will have up to two years to test the service in beta and solicit user feedback from early adopters.

As these new products and services begin to roll out, fintech and related policies are capturing the attention of government. The Minister of Finance's Advisory Committee on Open Banking concluded the first phase of their *Review into the Merits of Open Banking* consultation in early 2019. The Canadian Senate's Standing Committee on Banking, Trade and Commerce quickly followed with their June report *Open Banking: What it Means for You*, which included ten actionable recommendations for the federal government. These included suggestions to designate the Financial Consumer Agency of Canada as the temporary oversight body for existing open banking activities occurring in Canada. The Senate also sought funding for consumer protection groups to increase consumer awareness of open banking benefits and risks. And echoing both the Competition Bureau and the Advisory Committee on Open Banking, the Senate found the development of a "principles-based, industry-led open

banking framework” to be a top priority.¹²⁴ Further regulatory sandbox development, such as that of the CSA’s, was also put forward as one potential means to help “safely test and develop open banking technology”. The Ontario Securities Commission has since established a provincial regulatory sandbox, announcing it as part of its Innovation Office expansion in November 2020.¹²⁵

Open banking in Canada remains in the early stages. With the general soundness of Canada’s financial system leading to less upheaval in the wake of the 2008 financial crisis, some harder-hit hubs such as the UK and US have moved ahead with varying approaches. What’s not yet clear is which of those, if any, will ultimately be the path that Canada chooses to follow. Like many things, 2020’s pandemic also led to the federal government’s second round of consultations on the topic being delayed, although sessions resumed towards the end of the year.¹²⁶ The outcomes of these sessions will directly inform mitigations to any potential data and privacy risks identified during consultations with the industry.

The Senate Committee’s report suggested that one such risk included a lack of clear guidelines around how sensitive data is shared with third parties; for example, it was found that many Canadians may presently be using less secure “screen scraping” techniques.¹²⁷ As part of these guidelines, one recommendation was made to modernize Canada’s privacy act originally published in April 2000, PIPEDA.¹²⁸ In the meantime, Canadian financial institutions and fintechs continue to develop fit for purpose products and services, designed to help their clients securely share data using industry standards.¹²⁹ How Canada chooses to move forward is still to be determined. Yet whether there is a real or perceived risk to personal data protection, privacy concerns could be one factor acting as a barrier to consumer fintech adoption in Canada.^{130,131}

The COVID-19 Response and Supporting Canada’s Innovation Economy

By early 2020, entrepreneurs suddenly found themselves on runways which looked much shorter than they had just a few months earlier. With cashflow top of mind for businesses, employees and customers alike, the crisis highlighted a need for rapid access to emergency benefits and government supports.

In response, the federal government announced measures designed specifically to support these innovative businesses. This included \$250 million in funding made available through the federal Industrial Research Assistance Program, as well as \$962 million to various Canadian Regional Development Agencies.^{132,133}

The Canadian government also sought ways to rapidly and effectively disseminate emergency benefits to Canadian citizens and small business, with benefits such as the Canada Emergency Business Account (CEBA) aimed at the latter. Canada’s largest banks quickly banded together to support both consumers and businesses. For instance, among an array of new capabilities launched during the pandemic, TD developed the SimpleApps platform to streamline applications for financial relief.¹³⁴ As of December 2020, nearly 800,000 mortgage deferrals had been approved and C\$37 billion worth of CEBA loans processed by major Canadian FI’s.¹³⁵

Citing operational risks and existing banking infrastructure, the Ministry of Finance rejected fintech proposals to directly facilitate similar processing and distribution of COVID-related relief.¹³⁶ Some industry bodies pointed out that Canadian allies, such as the US, UK and Australia, did find ways to involve qualified fintech lenders in their COVID response initiatives, however.¹³⁷ Some fintechs opted to temporarily provide their own form of relief to customers, such as Fundthrough who subsidized CAD \$10 million of their lending services for clients in June.¹³⁸

Fintechs, like Canada’s major financial institutions, also demonstrated a keen ability

to adapt their technology and platforms. For example, prepaid card and rewards fintech Stack partnered with the Canada Revenue Agency to receive direct deposits for consumers accessing relief through the Canada Emergency Response Benefit. Vancouver-based digital credit adjudication platform JUDI.AI also noted it had processed \$150 million worth of Canada Emergency Business Account benefits for its banking clients by the end of April.¹³⁹ We highlight more examples in Figure 1.5 at the beginning of this report.

Looking Ahead: The Future Fintech Vision

Canada's economic stability and overall trust in the financial services industry are paramount concerns; Canada's largest banks are frequently cited as having among the most consistently valuable and trusted brands in the country.¹⁴⁰ While fintech may be a relatively new phenomenon, consumer-directed protections and industry-led standards needn't be a zero-sum tradeoff. Our research indicates Canadian startups are already benefitting from the strong foundations provided by government support and high-quality talent. And yet, Canadian cities may be falling behind competitively when it comes to certain elements, such as overall fintech adoption (see Section 3: Global Fintech Ecosystem Benchmarking below for detailed discussions on these metrics).

By pursuing efforts to drive further market efficiency and compliance simplification, geographically dispersed Canadian fintech hubs could be synchronously lifted on the global stage by the rising tides of productivity and accelerated speed to market. Globally recognized fintech hubs such as London and Singapore - leaders according to our benchmarking study - have achieved such results in part by outlining national fintech strategies. These are potentially one tool in the toolbox used to help balance industry interests, consumer protection, and the innovation economy.^{141,142} Although not a prerequisite for success, such a national strategy may allow the federal government to better align Canada's existing patchwork of provincial authorities and legislation,

“Canadian startups are benefitting from the foundations provided by public policies and talent quality.”

make way for greater industry involvement in policymaking, and leave space for future public sector procurement of fintech solutions.¹⁴³

Progress was made in 2020 despite COVID-19, including the resumption of public reviews into the merits and risks of open banking, as well as growing Canadian representation in industry standards such as the FDX API.¹⁴⁴ Some institutions are also proactively responding to these concerns; for example, TD entered into a North American data-sharing agreement with aggregator Finicity in August to better protect consumer data.¹⁴⁵ TD and Finicity, along with the majority of Canada's other major financial institutions, are also members of the aforementioned FDX consortium.¹⁴⁶

Although public officials were forced to respond with unprecedented speed and conviction during the pandemic, the COVID-19 crisis also revealed enduring undertones of doubt surrounding homegrown fintechs' reliability, as discussed above. Simultaneously, Canadian fintechs mobilized to support clients at home, but also in other regions. Although Canada has yet to pin down the most prudent and appropriate path forward, in a post-COVID world policymakers might start by building on existing momentum while adopting lessons learned during the pandemic.



Part 2: **Financial Services Industry Outlook and Trends**

I. Data Ownership, Digital Privacy and Identity

Growing fintech adoption has brought greater concerns over the handling of users' data – and with market research suggesting that the COVID-19 pandemic may have accelerated Canadian fintech adoption by as much as three to five years¹⁴⁹ - the industry is increasingly looking to establish clear guidelines on data, privacy and digital identity to enable secure and efficient growth of the fintech industry.

The State of Data Ownership and Digital Privacy in Canada

In early 2019, the Minister of Finance's Advisory Committee on Open Banking found that millions of Canadians were accessing applications leveraging screen scraping technology - a data aggregation method cited as being inefficient and less secure.¹⁵⁰ The Committee acknowledged that while privacy, security and liability concerns would still need to be ironed out, "existing risks could be addressed...through an accreditation framework" such as digital identification. The adoption of digital identification is thus linked with alleviating growing concerns over data ownership and digital privacy.

The Standing Senate Committee on Banking, Trade and Commerce followed with their own report in June 2019, *Open Banking: What It Means For You*. In it, the fourth recommendation called for swift "changes to modernize the Personal Information Protection and Electronic Documents Act" to "align it with global privacy standards", along with inclusion of a "consumer data portability right".¹⁵¹

Although public consultations were temporarily paused due to the pandemic, the Minister of Finance's Committee noted Canada might consider lessons learned in other jurisdictions that have implemented open banking initiatives - presumably referring to leading nations on the matter such as the EU, UK and Australia. These regions have moved ahead with their own frameworks, such as the Revised Payment Services Directive and the Consumer Data Right. With both public and industry momentum, Canadians can expect a

modernization of data ownership and digital privacy laws in the coming years.

The State of Digital Identity in Canada

The Senate's report noted that along with privacy rights and data protection, digital identification was another factor required to successfully "implement a secure and effective open banking framework that benefits both consumers and the providers of financial services".¹⁵² Industry stakeholders also noted this to the Minister of Finance's Committee earlier in 2019. By the end of 2019, the province of Québec had announced it was moving ahead with a request for interest from industry to assess the feasibility of rolling out a digital ID platform over the next five years.¹⁵³ Initial plans call for an online government services authentication system for individuals to be in place by the end of 2021, followed by one for companies, and finally a full-fledged digital "wallet" for Québecers' physical paper and plastic records by 2025. Ontario announced similar plans in October 2020, committing to becoming "the leading digital jurisdiction in the world" by first developing a secure digital ID wallet for Ontarians.¹⁵⁴ Industry consultations were set to begin in January 2021.

Among the bodies pushing for digital ID is the Digital ID and Authentication Council of Canada (DIACC) – a consortium of governments and industry working to develop a unified framework for the technology. To this end, DIACC announced in July 2020 an intention to partner with TechnoMontréal – a technology roundtable for the city – in the hopes of ensuring "as many Canadians as

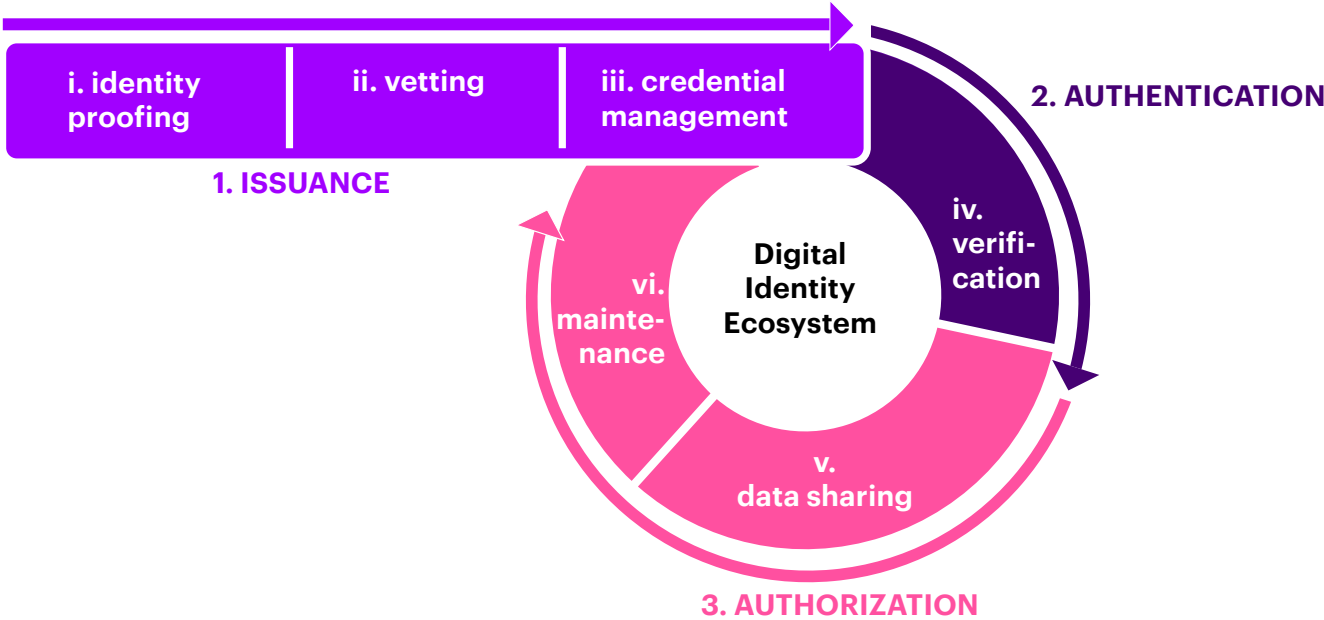
possible can realize the benefits of a secure digital identity framework”.¹⁵⁵ With provinces already ramping up digital ID programs and the federal government continuing to progress open banking dialogue, it is worth taking a closer look at digital identity technology and how it may enable greater ecosystem participation and consumer protection.

A Closer Look at Digital Identity Technology
Identification is the transactional grease that keeps both monetary and non-monetary aspects of our economy moving. Oftentimes, only a few elements of our identity are required for day-to-day needs – but many of us carry around substantial data about ourselves in the form of physical credit cards and government-issued documents. Not only are these prone to loss and damage, but also theft and fraud. DIACC found that Canada

could reap C\$15 billion in economic benefits associated with the greater portability, interoperability and efficiency of digital ID’s as compared to the manual processing and risks of physical cards.¹⁵⁶ Of this, DIACC found financial institutions alone could realize upwards of C\$100 million in savings annually per institution due to reductions in fraud and handling times.

Historically, challenges have included expensive system build and maintenance costs for governments and businesses, and a significant rate of redundancy across the so-called “identity lifecycle” (see Figure 2.1). This lifecycle can be thought of as a value chain of sorts, with participants – including governments, public agencies and private companies – each involved in one or more steps.

Figure 2.1: The digital identity lifecycle. A view of how the different components of digital identity fit together to deliver value.



Source: Accenture industry analysis

Redundancy can take multiple forms, but one example would be maintaining numerous sets of login credentials for one's online accounts. For more critical transactions, another would be reconfirming one's identity every time a new bank account is opened, a new telecom contract is signed, or a new insurance policy is filed. Much like airlines' use of hubs and connecting flights to limit the number of 1:1 routes, fintechs such as SecureKey are playing the role of an intermediary between trusted identity "owners" and third parties who frequently need to verify those identities. With their product verified.me, the idea is that by leveraging distributed ledger technology financial institutions can provide access to third-party attestation using their existing databases of trusted identity information without revealing to those third-parties, or SecureKey itself, which specific data is being verified.

Although verified.me has attracted the attention of some companies interested in reducing both fraud and identity verification costs - such as Equifax, Sun Life Financial and Notarius - the future power of digital identity may lie in its ability to give users broad control over their data. A December 2019 report by password manager Dashlane found that an average internet user has 200 or more digital accounts, a number expected to double in five years' time.¹⁵⁷ Canadian governments - such as those of British Columbia (BC Services Card) and Alberta (MyAlberta Digital ID) - have already started down the path of streamlining citizens' many online identities, in tandem with private companies such as SecureKey.

Interoperability has been a key theme of the various public reviews into open banking and digital ID, and we expect that these initial discussions may converge in the future. Several standards organizations, such as DIACC and the Trust over IP Foundation, exist today as forums to set these important policy and specifications considerations. However, both the Advisory Committee on Open Banking and the Senate recommended that implementation should remain "principles-based" and "industry-led", with the government avoiding prescriptive legislation

whilst meeting the overall policy objectives of privacy, security, competitiveness and transparency.^{158,159} It remains to be seen precisely which route the government intends to take, or which elements from jurisdictions experienced with open banking may be applied in Canada.

Why Now is the Time to Act on Digital Identity in Canada

Accenture's 2020 Global Financial Services Consumer Study found that concerns over data security are top of mind for consumers, especially as adoption of digital channels surged through the pandemic.¹⁶⁰ Ontario's Chief Digital Officer, Hillary Hartley, summed up the situation in June by stating "never waste a crisis".¹⁶¹ As the virus spread, advanced ecosystems such as Estonia and Singapore used their online capabilities to reduce economic strain on their populations.¹⁶² Now, some are seeing opportunity in the wake of the pandemic, with World Bank Managing Director Mari Elka Pangestu likening the combination of "digital ID, digital payments, and data governance" in modern times to the roads and railways of yesteryear.¹⁶³ Indeed, the post-COVID world may represent an opportunity to accelerate evaluation, investment and implementation of this technology.¹⁶⁴

II. The Rise of Banking-as-a-Service

Banking-as-a-service (BaaS) is an innovative financial services business model growing in global popularity. By significantly lowering the barrier of entry into the industry, BaaS trends may presage a new era of fintechs. While Canada has few pure BaaS companies, activity levels could quickly change as ambiguity clears around interoperability standards.

An Introduction to Banking-As-A-Service

Banking-as-a-service is the exposure of licensed banking products and services to third parties via application programming interfaces (APIs). Not to be confused with open banking, which allows customers to consent to sharing certain banking data and functionality with third parties, BaaS provides non-banks with access to regulated, functional products such as loans, deposit accounts and debit cards. In turn, non-bank entities can offer these products to their own clients with reduced regulatory overhead, oftentimes across geographies.

The UK's Starling Bank has turned this approach into a key aspect of their strategy. Using APIs, the digital challenger bank has white-labelled many services, allowing incumbents, fintechs and even public agencies to "develop and scale new financial products quickly and efficiently without the need for long development lead-times and complex legal arrangements".¹⁶⁵ Goldman Sachs has also cited BaaS as an integral component to its future strategy, launching a corporate payments platform in October 2020 allowing clients to plug directly into the bank's APIs.^{166,167}

BaaS may enable projects to happen faster and more affordably by decreasing sales cycle times, implementation costs and other barriers to entry. As such, the industry may see a growing number of global BaaS providers and non-bank brands offering financial services in the near future.



“Banking-as-a-service embeds financial services into non-bank brands.”

Examples of Banking-as-Service Technology

London-based agency 11:FS' BaaS perspective characterizes participants into three key categories: "license holders", "providers" and "brands".¹⁶⁸ A given company can occupy one or more of these categories. In general, however, licensed banks partner with providers to facilitate access to regulated products and infrastructure via APIs. Non-bank brands, in turn, can offer these products to their customers through a business front-end by integrating with providers.

UK-based Starling Bank operates both as a license holder and provider. While the Bank's BaaS platform was allegedly costly to build, the offering was cited as a competitive bright spot in the otherwise difficult few quarters for

banks due to COVID-19.¹⁶⁹ US-based Galileo, a BaaS provider, powers “95% of digital banking” in North America and “70 of the top 100 fintech companies globally”.¹⁷⁰ Galileo provides an entire financial services backend licensed by banks Bancorp and Stride. Some financial brands, such as Chime, use Galileo services to focus efforts on the customer experience. Chime has since achieved a valuation in the billions of dollars without ever holding a banking license.¹⁷¹ Non-financial brands are also showing success with BaaS, such as Apple’s credit card backed by Goldman Sachs. Could we expect to see similar trends play out in Canada?

Innovative financial services models such as banking-as-a-service rely on industry openness, collaboration and consensus.”

The Future of Banking-as-a-Service Models in Canada

Two examples underscore BaaS progress in Canada to-date. Fintech Ario was acquired by Thinking Capital in November 2020 with the goal of building the “provider” infrastructure necessary to connect Canadian brands to licensed small-medium business lenders.^{172,173}

The fintech uses API integrations to help non-bank brands with SMB clients facilitate financing via licensed partners. Similarly, the Financial Data Exchange (FDX) consortium launched in Canada in July of last year with 31 inaugural members, hoping to “develop a secure, common, interoperable, flexible and royalty-free industry standard for financial data sharing”.¹⁷⁴

While some Canadian ecosystem players are making commendable progress by leveraging BaaS, to-date banking-as-a-service platforms are not as widespread in Canada as they are in other jurisdictions. Presently, there is a noticeable positive correlation between the number of BaaS-like companies in a given ecosystem and that ecosystem’s progress on technical interoperability standards. As such, unleashing the full potential of BaaS products and services may require further examination and adoption of next-generation technologies and standards in Canada as well.

III. The Digital Race to Serve Small and Medium-sized Businesses

A Business Development Canada (BDC) survey found that only 8% of entrepreneurs indicated that they regularly engage their financial institution for business advice, despite access to working capital materializing as the single biggest barrier to entrepreneurial opportunity.¹⁷⁵ Below we examine how the Canadian financial services ecosystem is developing to support SMB's through financial and productivity challenges, as well as those brought on by COVID-19.¹⁷⁶

As Major Canadian Employers, SMB's Continue to Face Financial and Productivity Challenges

Innovation, Science and Economic Development (ISED) Canada collectively define SMB's as business establishments with between 1 – 499 paid employees[†]. Collectively, SMB's employ nearly 11 million Canadians.¹⁷⁷ Given their implicit economic importance, developing technology effective at stimulating SMB productivity and growth may be one means by which to positively benefit the country's broader economic position.

SMB's and entrepreneurs at times face stiff headwinds on financing. BDC research found over half of business owners felt their growth strategy was impeded due to a lack of capital.¹⁷⁸ While the most popular form of financing was found to be term loans, such arrangements can take significantly longer to process in comparison to alternative forms of financing, such as online lending. Besides financing, other common productivity pain points for SMB owners can include financial administritivia (e.g. receipt management, payroll, bill payments, taxes, etc.), complex bookkeeping processes, payment delays and banking fees.

[†]According to ISED, since self-employed and "indeterminate" businesses are not considered to have paid employees, they are generally not included in Government of Canada ISED statistics. Self-employed workers include those with incorporated and unincorporated businesses that may or may not use paid help. "Indeterminate" businesses include self-employed and contract workers.



“42% of SMB owners agreed that using technology is one of the highest impact ways to increase their odds of success”

Canadian Banks Begin to Take Their SMB Clients Digital

In response, incumbent financial institutions (FI) and fintechs alike are seizing on these concerns with fervor. While BDC findings show larger companies tend to be more digitally mature, 42% of SMB owners agreed that using technology to make their companies more efficient is one of the leading way to increase their future odds of success, and many firms are rushing to meet this demand.^{179,180}

The past few years have seen some FI's enter this space with select partnerships to augment their existing SMB offerings. One recent example includes new tie-ups between two Canadian banks and Intuit; 2020 brought

SMB customers both BMO's SMB API Portal and TD's data-sharing agreement with the US-based fintech.^{181,182} Earlier, CIBC launched SmartBanking for Business. The platform gives operators a way to integrate with popular cloud services offered by Intuit, Ceridian and Xero, allowing for more timely insights and fully digital account opening.^{183,184} BMO's ongoing Small Business Banking Challenge at Ryerson University's DMZ startup accelerator also supports fintechs focused on this niche.

Acquisitions, particularly by US incumbents, have been particularly robust in this space, although the global pandemic put a temporary damper on some deal activity (see Figure 2.2). Notably, one of the largest ever Canadian technology exits came after H&R Block's 2019 acquisition of Toronto-based Wave for C\$537 million.¹⁸⁵ Other notable interest in the space include Affirm's purchase of lender PayBright, as well as Apple's deal with mobile payments platform Mobeewave. This pattern is expected to grow as economy recovers from the global pandemic.

Figure 2.2: The Canadian SMB fintech landscape. Notable 2019/2020 deals are highlighted (equity, debt, M&A, and IPO). All figures \$CAD.

	Accounting and Bookkeeping	Payments, POS and E-commerce	Lending and Financing	Banking and Insurance
Funded	\$41m Series B	\$358m, Pvt. Eq. \$158m Series E	\$393m Series B \$15m Series A \$34m Series A	\$29m Series A
Acquired	Great Hill, \$126m H&R Block, \$537m	Apple, \$130m	Affirm, \$340m	
Publicly Listed	N/A	2020 2019	2020	N/A
SMB Partnership/ Integration				

Source: Accenture analysis of Crunchbase data and publicly disclosed deal information.

Funding Hits New Heights for the Digital Attackers

Homegrown fintechs with SMB clientele have also continued to forge ahead. Many have especially proved their worth during the pandemic, successfully riding the wave of accelerated digital adoption. Lightspeed POS set the bar in 2019 in one of the largest ever technology IPO's on the TSX.¹⁸⁶ Fellow payments platform Nuvei later went public in September 2020, the exchange's largest ever tech IPO at the time of writing.¹⁸⁷ In what some suggested as a sign of the times, SMB e-commerce platform Shopify edged out Royal Bank in May 2020 to become Canada's most valuable company by market capitalization.¹⁸⁸

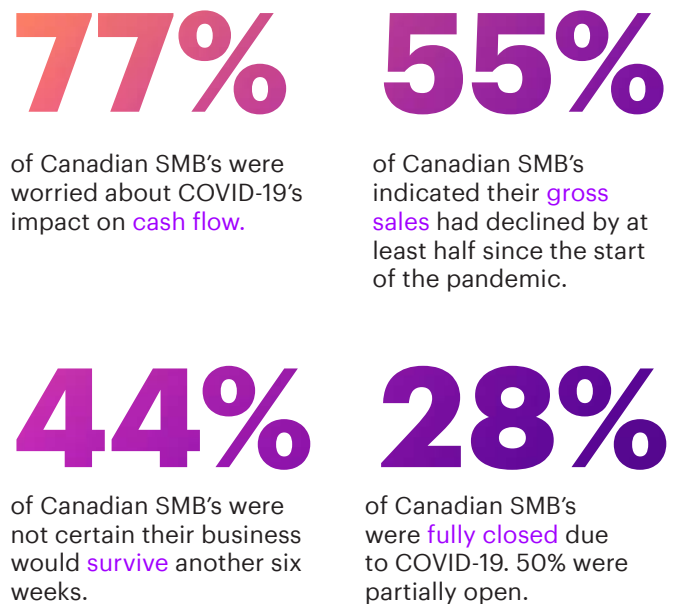
SMB Fintech and Canada's COVID-19 Response

SMB's struggled through the ups and downs of COVID-19 (see Figure 2.3). Yet Canadian financial institutions and fintechs catering specifically to SMB needs may be some of the best positioned to help assist the country's small businesses pull through.

As the economy reopens, digital bookkeeping platforms such as Wave, Bench and FreshBooks are freeing up time for entrepreneurs to focus on supporting customers. Integrated payments solutions such as Lightspeed and Plooto are facilitating rapid, contactless exchanges. And SMB lenders Clearbanc and FundThrough are leveraging alternative methods to disseminate working capital faster and more transparently. While these examples are non-exhaustive and don't include direct financial relief, they highlight the potential importance of such solutions in the country's overall recovery.

“Fintech leaders in the SMB space are reaching across verticals to add greater value for their customers.”

Figure 2.3: Canadian SMB's struggled through COVID-19 lockdowns. Data as of April 15th, 2020.



Source: Canadian Federation of Independent Business, COVID-19: State of Small Business, Key weekly survey results – Week 5

Fintech leaders in the SMB space are also reaching across verticals to add greater value for their customers. For example, as the COVID-19 crisis worsened, Shopify announced the launch of Shopify Capital in Canada along with a \$200 million addition to the fund.¹⁸⁹ Shopify Capital allows operators to quickly access business financing while flexibly repaying loans from a percentage of sales. While not yet available in the Canadian market at the time of writing, these leaders also announced ambitious plays into business banking. Shopify introduced Balance, a merchant card and current account power by Stripe Treasury.^{190,191} In June 2020, Wave also announced Wave Money, a no-fee business bank account, debit card, and mobile app integrated with Wave's existing bookkeeping and payments platforms.¹⁹²

Given Canadian SMB's important economic role and their vulnerability to downturns such as the one brought on by COVID-19, expect there to be renewed focus and energy in this space. Extrapolating current trends out and accounting for lessons learned during the COVID-19 crisis, heightened collaboration between fintechs, financial institutions and government within the SMB ecosystem is a distinct possibility. As the Canadian economy returns to a "new normal", rebundling may also accelerate across verticals with new ecosystem winners emerging. As this takes place, entrepreneurs may become the focus of powerful new platforms capable of giving SMB owners unified views of their company, new tools designed to reorient operator focus away from paperwork and onto what's important, and diversification of their existing providers' capabilities.



IV. The Lasting Effects of COVID-19: The Future of Credit and the “Elastic Workforce”

The COVID pandemic may force lenders to rethink traditional credit modelling methods, some which may have become obsolete. While some FI's and fintechs have initially responded with short-term tactics like credit deferrals, new technology and tools will be needed for making informed credit decisions. In addition, FI's and fintechs may also have to plan for an “elastic” workforce as rates of remote work increase. Employers might consider the pros and cons of these emerging workforce patterns and expectations, building new capabilities that will allow for better collaboration between distributed teams without impacting results.

The Future of Credit

By the end of November 2020, Canada's major banks had processed nearly 480,000 credit card and 800,000 mortgage deferral requests due to COVID's economic fallout.¹⁹³ Ballooning loan loss provisions were a particular focus for the Canadian banks as they announced their quarterly earnings. Retail, commercial and small business (SMB) borrowers struggled during this period.

Traditional credit risk models are not necessarily built to cope with a pandemic of this nature. Many models base their assumptions on historical economic data and well-established indicators, such as personal credit scores or industry benchmarks. With the epidemiological nature of this downturn, models' predictive variables likely had no historical precedent. This vulnerability has come into focus due to the possibility of a COVID-induced credit crisis, one expected to be characterized by a significant increase in private led debt provision.¹⁹⁴

As banks are forced to step up through 2021, rising global debt levels will result in evolution of credit, collection and recovery cycles. Right now, lenders can respond with short-term tactics such as interim credit policies, deeper analysis of high-risk borrowers and industries, and reevaluations of deferrals or forbearances for those segments.¹⁹⁵

Soon, leveraging digital technologies and data, or finding reliable partners who do, may

become key to mitigating future downside risk. Calgary-based Symend appears well positioned to ride this wave after closing a C\$73 million Series B round in May 2020. This fintech helps lenders engage more empathetically with at-risk customers in challenging times through “early and personalized digital interactions” based on behavioural science.¹⁹⁶

As models are recalibrated, lenders might consider accelerated adoption of non-traditional data at the customer-specific and systemic levels; think of a retailer's foot-traffic versus sales in its region, or an individual's spending habits versus macroeconomic data. Assuming such data is user-permissioned and handled with care, mining insights from it will be an important first step to building better borrower profiles and client trust.

Incumbents such as Equifax have already begun to position themselves for the explosion in alternative insights by leveraging user-permissioned data from partners such as Yodlee (bank transactions), Urjanet (utility and telco), and DataX (subprime and specialty data) for credit decisioning.¹⁹⁷ Similarly, fintechs such as the UK's Aire and Singapore's Lenddo make use of AI and “first-party” data (lifestyle, digital footprints, etc.) to build profiles and extend credit.¹⁹⁸ Others, such as Cred.ai, are already combining several trends identified in this report, with plans to license their automated credit-building platform using banking-as-a-service principles.¹⁹⁹ However,

COVID may present a unique opportunity to pivot and repurpose some of these capabilities and platforms to more intimately understand customers in need.

Leveraged appropriately, such context could provide the foundation for better customer experiences, with credit specialists delivering highly personalized treatments using AI-generated insights rather than sweeping interventions across multiple industries or segments. Lenders might reflect on the far-reaching implications of the pandemic, and separate good credits from those whose collateral may have been severely impacted for years to come. Historically, analytical muscle has generally targeted sales functions. While origination is critical, this environment may necessitate building broader, multi-faceted views of borrowers' situations using intelligent tooling and models, not only to allocate credit more effectively but also extend client trust.

The "Elastic" Workforce

In March of 2020, many Canadian businesses were faced with the unprecedented operational challenge of enabling their workforce with processes and tools to work remotely. Despite the speed with which employers acted, Accenture research conducted in May found that employees were almost equally split on whether their companies had responded well to the pandemic or not.²⁰⁰ The concept of an "elastic" workforce extends this rapid response, initially designed to protect employees, into a potential long-term opportunity.

Within Canada's financial services ecosystem, a number of financial institutions initially struggled to cope with the sudden strain of the new virtual workforce.²⁰¹ Research conducted by Harvard Business School also suggested that "at least 16% of employees will remain at-home workers long after COVID-19 recedes", meaning that employers may have to think strategically about the long-term operations of their remote workforce.²⁰² Other research has revealed that the upfront costs could be offset by savings in other areas.

Modelling by Global Workplace Analytics estimates that employers could save USD \$11,000 annually per half-time telecommuter, while Upwork has found that hiring remotely can provide employers access to larger pools of talent in areas with a lower cost of living.^{203,204} The elasticity of the "elastic" workforce is ultimately derived from this sort flexibility. Firms who have suddenly embraced virtual collaboration and cloud-based platforms may be sowing benefits long after the COVID crisis, assuming such tooling is combined with effective rollout, maintenance and adoption. Remotely tapping into talent who might otherwise be unwilling or unable to relocate and investing in their success may also provide a competitive advantage.

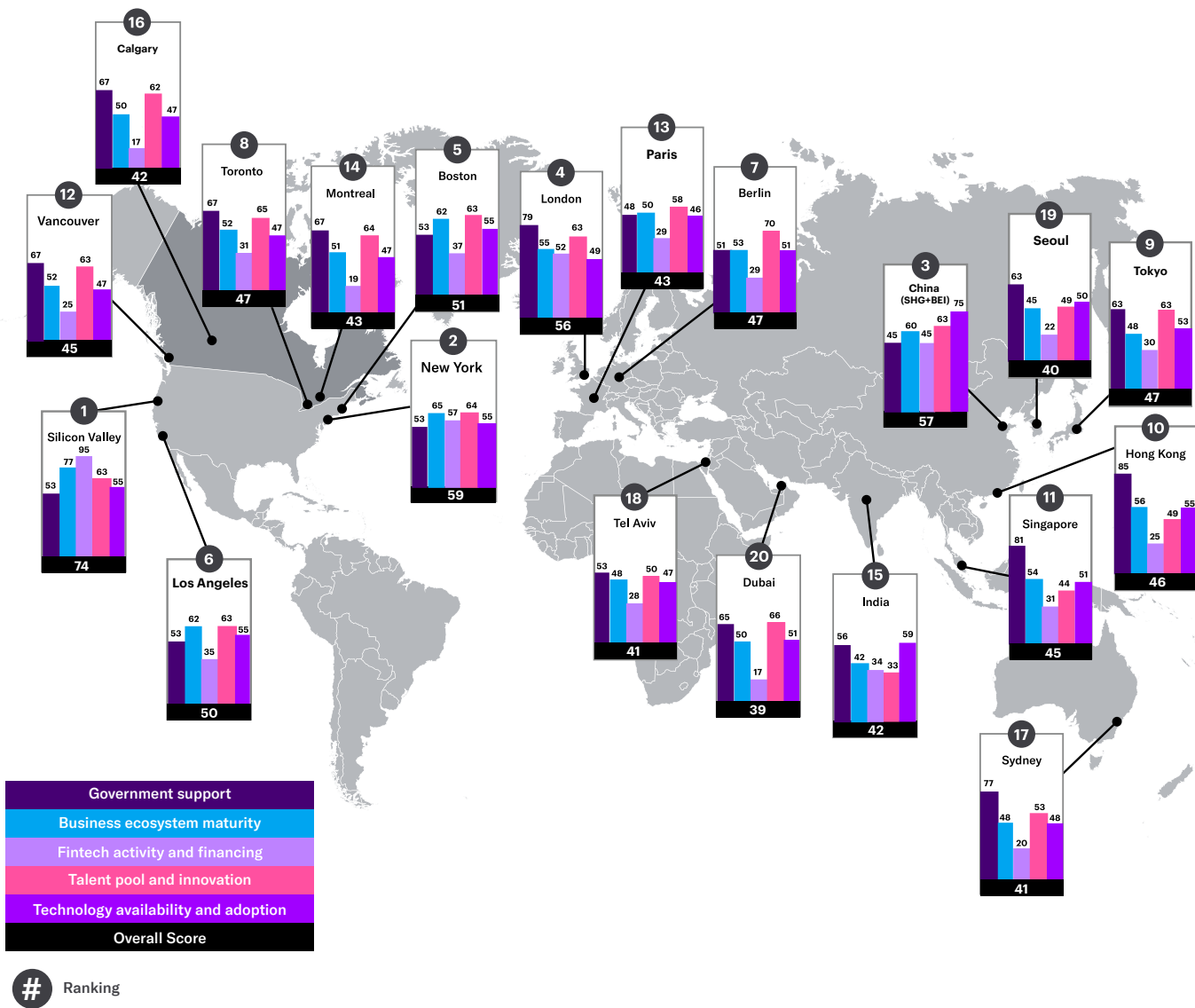
This is not to say that the virtual shift accelerated by COVID-19 is universally positive. In July, a number of executives interviewed by the Wall Street Journal felt that the current approach may be unsustainable given levels of employee fatigue, and that moments of spontaneous collaboration in the office were being lost.²⁰⁵ While it can be difficult to accurately quantify these less tangible benefits, Accenture research also uncovered that about two-thirds of people miss the social interaction at work, while about half stated they had not yet established a good routine for working from home by May of 2020.²⁰⁶ For many, balance will be crucial.

It is too early to predict what the future of work might look like in a post-COVID world, but firms who took swift action to navigate the crisis may now be poised to build greater productivity, resiliency and trust. The essence of an "elastic" workforce is much more than simply a virtual work environment. While such software is critical for productivity, firms must also consider the implications of deploying these collaboration tools securely at scale. Moreover, as the situation evolves, business continuity planning and fostering a transparent culture of adoption will be critical for preparedness in the next unforeseen disruption.²⁰⁷ Regardless of how the future unfolds, flexibility will be key to protecting and empowering employees while serving customers' core needs through the next crisis.

Part 3: **Global Fintech Ecosystem Benchmarking**

This section ranks four Canadian cities against 16 other leading and emerging fintech hubs around the world. Accenture’s proprietary benchmarking model draws on 46 individual data points distilled into five key metrics: Government Support; Business Ecosystem Maturity; Fintech Activity and Financing; Talent Pool and Innovation; and, Technology Availability and Adoption. To round out our analysis, we also examine global investment growth trends across hubs, relative to individual Canadian cities and the country as a whole. Details on this benchmarking methodology and the selection of metrics are detailed in [Appendix A](#).

Figure 3.1: Detailed ranking of the 20 global fintech hubs examined for this report.

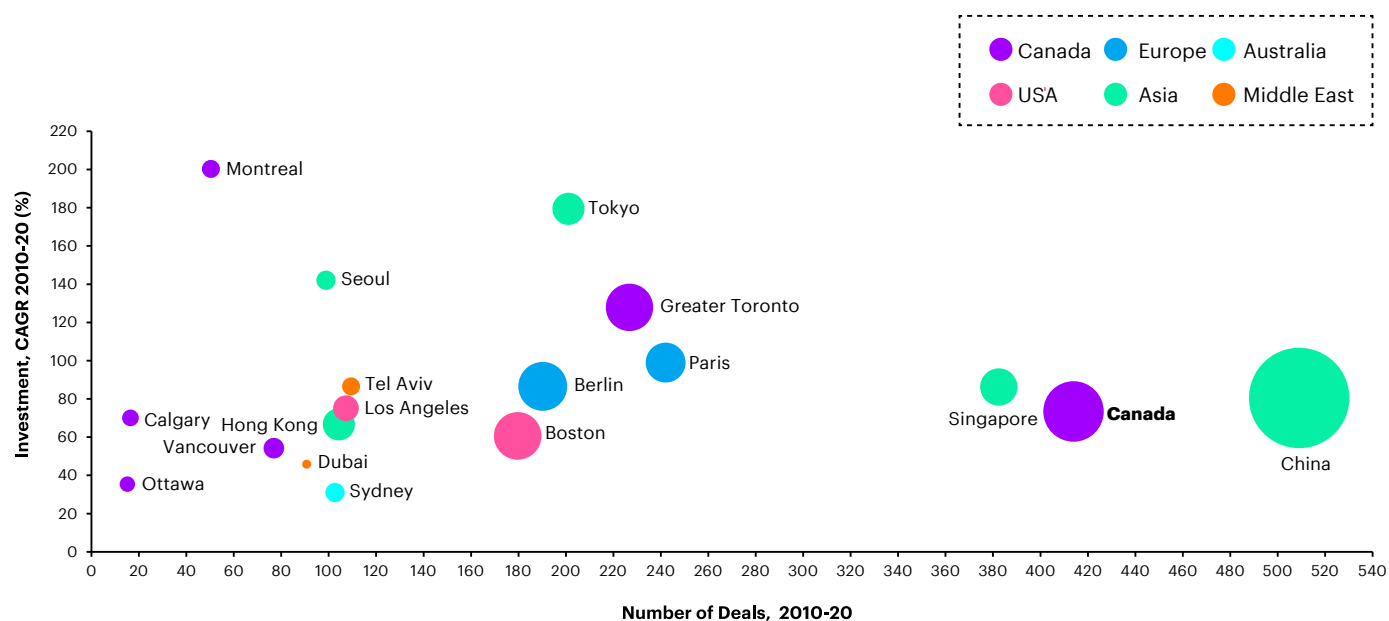


Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)
 Note: For metrics used, please refer to benchmarking methodology in the appendix.

For 2020, our benchmarking analysis ranked Toronto (8th), Vancouver (12th), Montreal (14th) and Calgary (16th) against 16 international hubs (see Figure 3.1 for a complete ranking). Generally, our findings demonstrate that Canadian hubs are leaders when it comes to the primordial elements necessary to grow and sustain a successful innovation ecosystem – such as accommodative government business policies and strong talent. However, Canada still has room for growth in areas such as overall technology adoption.

Individually, major Canadian fintech hubs rank as some of the fastest growing in terms of investment. Of the cities analyzed, Montreal leads Canada with a 10-year cumulative CAGR of 200%, followed by Toronto at nearly 130%. This puts both cities comfortably in the top five fastest growing hubs alongside Tokyo, Seoul and India (see Figure 3.2 and notes). While total deal value remains subdued in individual Canadian cities relative to global leaders, Canada collectively punches above its weight in terms of number of deals closed. Over 400 Canadian fintech equity deals have closed in the last 10 years, with a total combined value in excess of USD\$2.5 billion based on publicly disclosed information.

Figure 3.2: Cumulative fintech equity financing CAGR % vs. fintech deal volume for fastest growing global hubs, 2010 – 2020. Bubble size is indicative of total relative deal value.



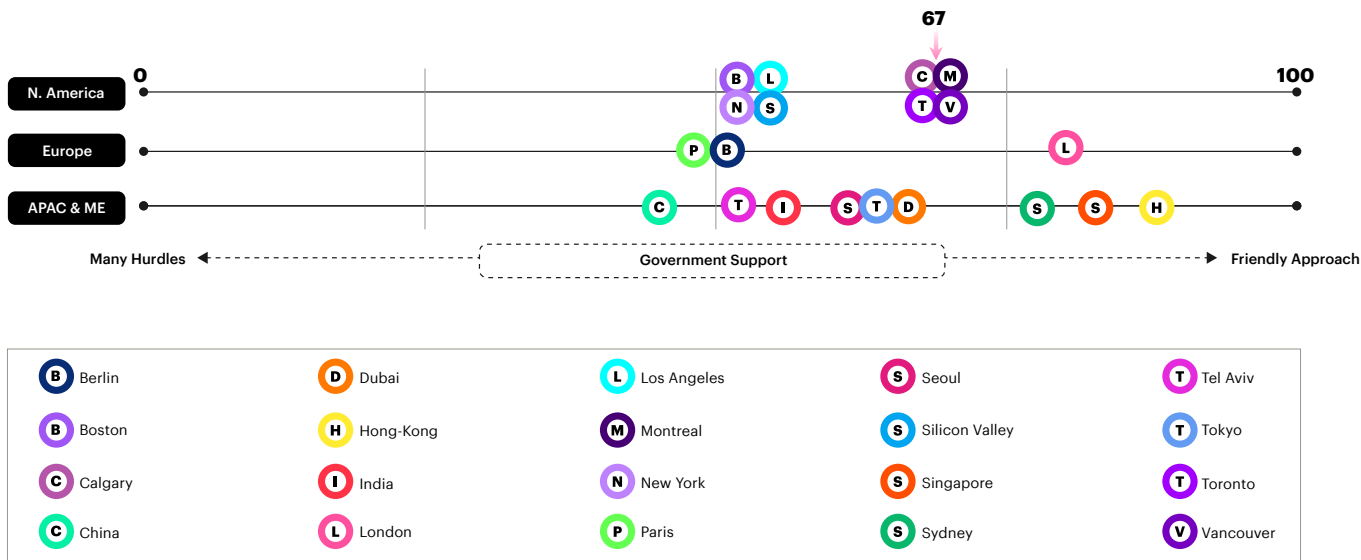
Source: Accenture analysis of CB Insights data.

Note 1: Investment value refers only to deals with amounts reported by CB Insights while deal volumes refers to all deals. Yearly volume of equity financing (pre-IPO angel, incubator, growth equity, seed, series A+ and private equity) for fintech in Canada.

Note 2: Silicon Valley, New York, London and India have been excluded from this view to highlight the fastest growing hubs covered by our benchmarking analysis. China includes figures for Beijing and Shanghai. "Canada" represents an aggregate of Canadian hubs including "Other Cities" represented in Figure 1.11. See Appendix A for additional geographical assumptions.

Government Support

Figure 3.3: Government Support benchmarking, 2020.



Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)
 Note: For metrics used, please refer to benchmarking methodology in the appendix. Absolute positioning of selected hubs on 0 – 100 scale, normalized absolute values for all indicators, all available countries/cities.

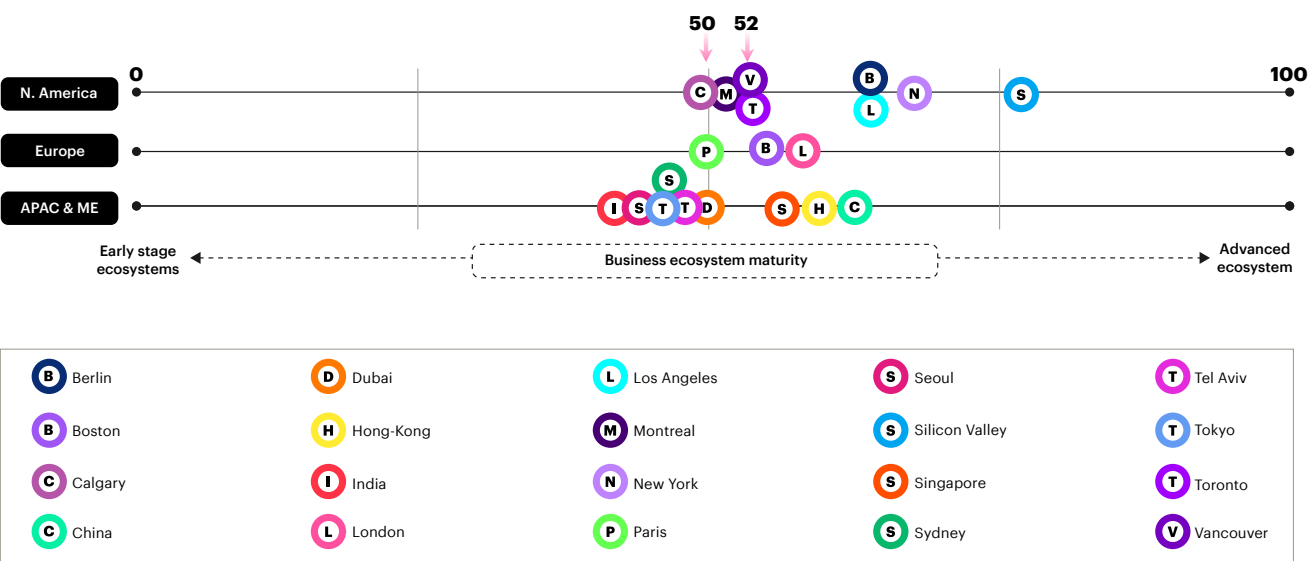
The Government Support metric measures the attractiveness of each respective hub based on several government-controlled parameters. By examining regulatory barriers to entry (or the lack thereof), the cost of operating in each jurisdiction and the extent of any fintech-friendly policy, this metric quantifies the desirability of establishing and operating a fintech in each region.

Hong Kong emerged as a leading region due to favourable tax policies and lower regulatory burdens, edging out Singapore, London and Sydney. Canadian cities performed relatively well on this dimension, with all four hubs benefitting from high quality national regulation and the ease of starting a Canadian business. A common feature among the 2020 leaders in Government Support was the existence of highly developed fintech regulatory sandboxes, something Canada currently lacks at scale and that the Standing Senate Committee on Banking, Trade and Commerce recommend the government focuses on building out.

Given its strong foundation, as Canada further develops means to accelerate the process of bringing technology solutions to market while reducing regulatory and consumer risk, Canadian hubs can expect to improve their score on this dimension. The Ontario Securities Commission’s new provincial sandbox, announced in November 2020, is one example of this growth already beginning to occur.²⁰⁸

Business Ecosystem Maturity

Figure 3.4: Business Ecosystem Maturity benchmarking, 2020.



Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)
 Note: For metrics used, please refer to benchmarking methodology in the appendix. Absolute positioning of selected hubs on 0 – 100 scale, normalized absolute values for all indicators, all available countries/cities

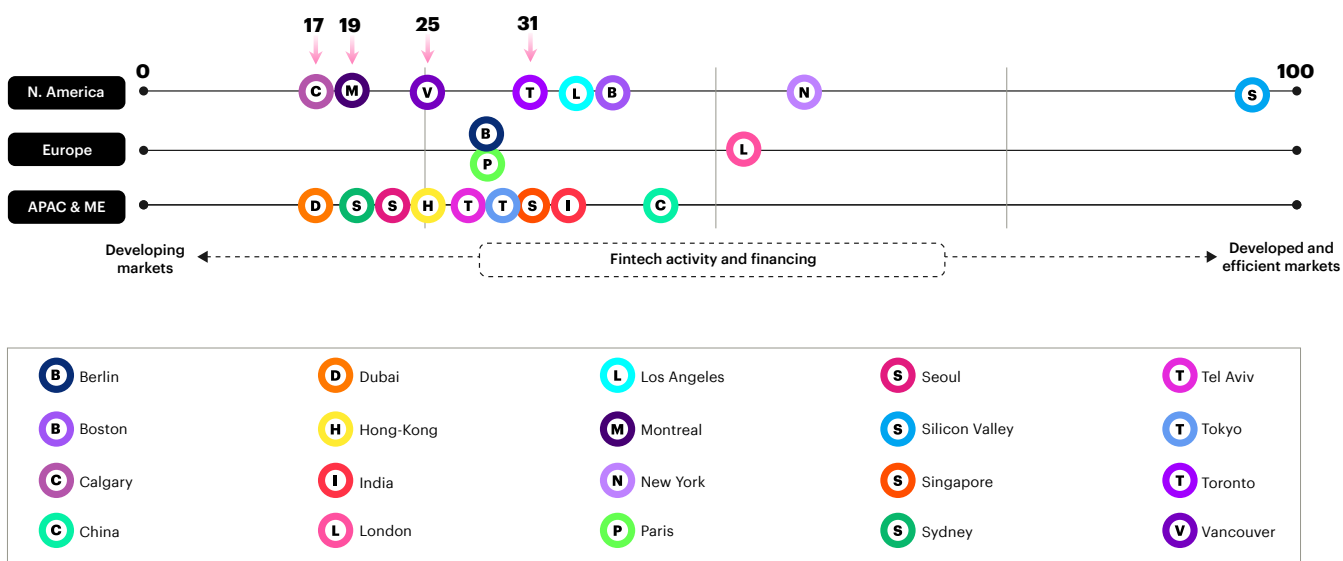
The Business Ecosystem Maturity metric evaluates each hub’s general startup ecosystem attractiveness and development. Levers that comprise this metric include inflows of foreign direct investment (FDI), quality of life and cost of living, firm concentration, and the economic value of the startup ecosystem.

American fintech hubs Silicon Valley, New York, Boston and Los Angeles led the way in 2020. Their ecosystem development scores were primarily driven by higher rates of growth and large concentrations of innovative startups. Canadian hubs round out the middle of the pack, edging out higher-ranked peers only on certain sub-dimensions such as cost and quality of living. Canada lags other hubs, such as Hong Kong, Singapore and London, on this metric overall due to those hubs’ abilities to attract a greater degree of FDI and their relative positions as global financial centres.

While drivers of this metric may be slower to improve than others being considered in this model, much like Government Support Canada has a strong foundation to build on. Promoting more intimate national coordination to better sow the seeds of innovation and shaping homegrown clusters of talent will both be important to moving Canadian hubs up the ranks on this dimension. A renewed focus on encouraging and retaining cross-border investment may also benefit Canadian hubs given the impact of COVID-19 on 2020 fintech deals.

Fintech Activity and Financing

Figure 3.5: Fintech Activity and Financing benchmarking, 2020.



Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)
 Note: For metrics used, please refer to benchmarking methodology in the appendix. Absolute positioning of selected hubs on 0 – 100 scale, normalized absolute values for all indicators, all available countries/cities.

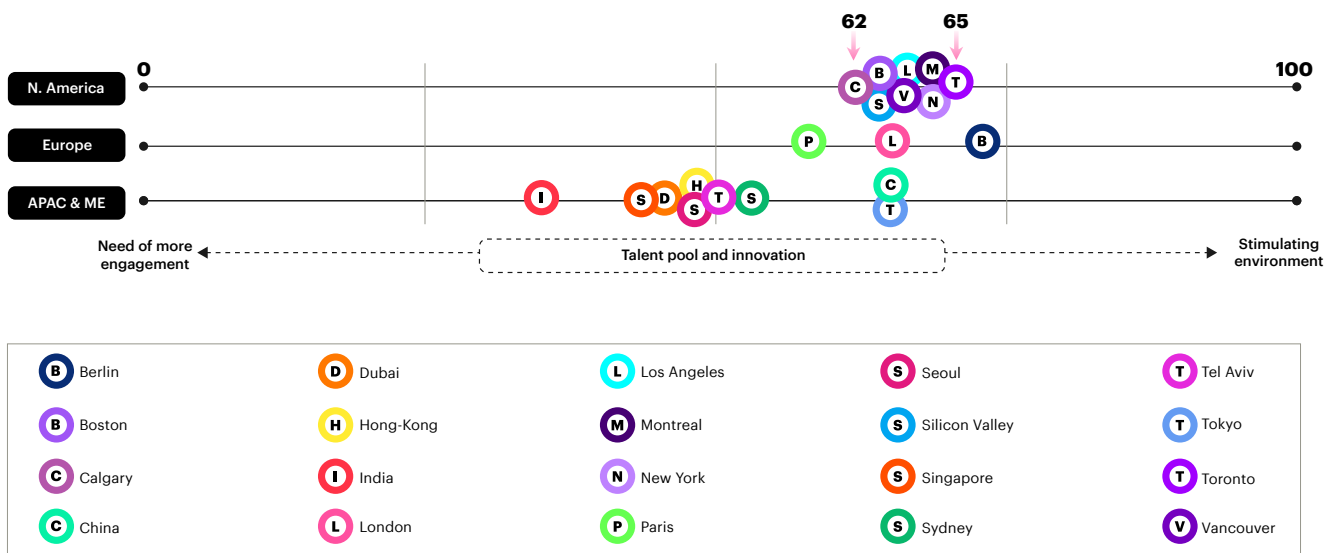
This metric assesses a hub’s fintech-related investment volumes (in nominal and dollar-value terms), share of global fintech deals, and access to equity and debt financing.

Silicon Valley took top spot on this metric due to its large share of global fintech deals, both in terms of number of deals and dollar-value. Points were also awarded for venture capital availability and the relative experience of those investors. While New York and London scored high on financing options, they fell to distant second and third places respectively due to lower concentrations of fintech-specific deal activity and acquisitions.

Of the five metrics evaluated, Canadian hubs scored lowest on fintech activity and financing. Toronto leads the pack as the city played host to an increasing number of fintech deals and acquisitions, placing it among hubs such as Singapore, Tokyo and Los Angeles. Montreal, Vancouver and Calgary scored among the lowest of all hubs assessed, owing to their marginal share of global fintech activity. As this metric is an important indicator of a hub’s overall benchmark ranking, Canadian cities and governments might consider continued promotion of regional fintech investment and the attraction of VC’s to increase competitiveness in this area.

Talent Pool and Innovation

Figure 3.6: Talent Pool & Innovation benchmarking, 2020.



Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)
 Note: For metrics used, please refer to benchmarking methodology in the appendix. Absolute positioning of selected hubs on 0 – 100 scale, normalized absolute values for all indicators, all available countries/cities.

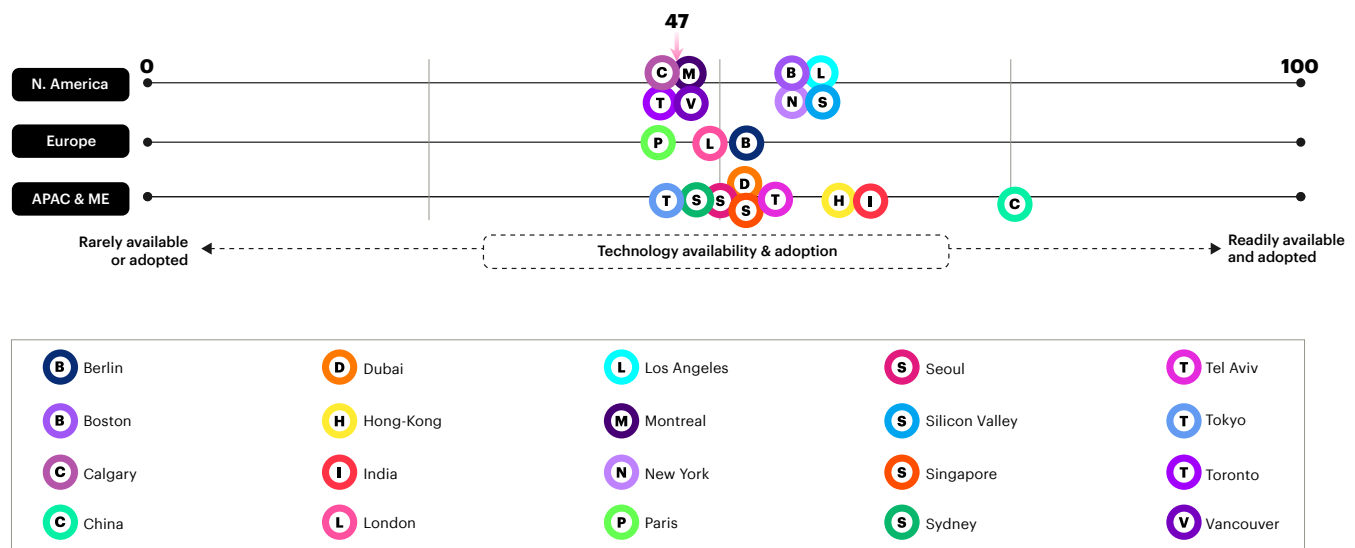
This metric assesses the quality of each hub’s talent pool and their relative “cultures” of innovation. A hub’s immigration policy, capacity to attract skilled foreign talent, as well as the internal mobility and digital skills of the workforce all contribute to this ranking.

With well-rounded scores across many of the metric’s sub-dimensions, Berlin ranked first in Talent Pool and Innovation, with Toronto coming in a close second. Leaders in this category for 2020 demonstrated a labour force with strong financial literacy, and governments with progressive immigration policies towards highly skilled workers. These factors gave Canadian hubs a strong edge, particularly against leading US and Asian hubs, despite somewhat average scores across several other dimensions, such as relative quality of education.

Looking ahead, Canadian hubs could improve their overall Talent Pool and Innovation scores by increasing focus on the commercialization of homegrown technology. Canadian companies’ end-to-end innovation capacities are lower vis-à-vis top US and European hubs. Greater R&D collaboration between academia and industry is one way in which Canada could move up in this category.

Technology Availability and Adoption

Figure 3.7: Technology Availability & Adoption benchmarking, 2020.



Source: Accenture analysis (Accenture Research Fintech Hubs Maturity Model)

Note: For metrics used, please refer to benchmarking methodology in the appendix. Absolute positioning of selected hubs on 0 – 100 scale, normalized absolute values for all indicators, all available countries/cities.

Technology Availability and Adoption assesses the penetration of internet and mobile connectivity within a given hub, the proportion of the banked population, as well as companies' willingness and ability to embrace disruption.

China and India comfortably lead the way in this metric, given their large populous who have taken to much of their technology with a mobile-first mentality. This measure sets the stage for the proliferation of existing fintechs and formed the scalable foundation for those that will inevitably follow. Despite having a comparatively well-banked population, Canada lags many of its US and Asian peers in this metric due to the disparate nature of the country's small population impacting overall high-speed internet connectivity and mobile subscriber numbers. Recommendation IX of the Senate's open banking report suggested that the government "immediately expediate its efforts to expand robust internet broadband accessibility and capacity to remote, rural and northern communities".²⁰⁹

The Technology Availability and Adoption metric carries a relatively lower weight compared to others in the benchmarking model. However, Canadian hubs could improve in this area by looking to how leading locales, such as Hong Kong, Silicon Valley and Tel Aviv, are encouraging their businesses to continually embrace disruption and develop products and services based on the latest technologies (e.g. through fintech-friendly policy, incentives, etc.). COVID may well accelerate this trend as well, as market research showed a considerable fintech adoption shift in Canada during the pandemic, including nearly two-thirds of Canadians using less cash.^{210,211}

A woman with long dark hair and glasses is smiling and looking upwards. She is wearing a light-colored top. The background is dark with several horizontal red neon light bars. The text 'Part 4: The Canadian Fintech Ecosystem: Looking Ahead' is overlaid in white.

Part 4: **The Canadian Fintech Ecosystem: Looking Ahead**

The growth in Canada's fintech ecosystem attained in 2019 has been temporarily subdued by the global pandemic. While Canada responds to the epidemiological effects, the future has accelerated to being online and mobile. Below we outline three thematic areas which will be key to ensuring Canadian fintechs and financial institutions learn from 2020 and use their momentum to emerge from the downturn even stronger than before.

Come Together to Win

A common thread through this report has been the value stemming from authentic partnerships and close-knit collaboration. The future strength of the financial services sector in Canada will depend in part on ecosystem players' willingness and ability to compete in some areas while cooperating in others, particularly given the need to quicken the pace of change, meet the needs of customers and stay ahead of the market.

As highlighted above, spirited technology partnerships already underlie some major financial services. To address changing consumer habits, fintechs and incumbents are increasingly identifying novel opportunities to work together. Leveraging banking-as-a-service platforms means that non-bank brands may also find themselves reaching into the industry using new models. As industry boundaries blur, leaders will offer more products and experiences by working together at the intersection of their respective strengths.

Other challenges, too, may be best approached from a collaborative perspective. Canadians' digital behaviour and fintech adoption accelerated significantly during the pandemic, raising concerns about digital privacy and security.^{212,213} Now, policymakers, industry leaders and consumer interests are coming together to shape and develop future standards. Such roundtables offer a potential conduit through which to solve Canadian interoperability challenges and balance public interests with rapid innovation. Moreover, Canada has many lessons that could be learned from other global hubs who have implemented forward-looking solutions such as open banking, digital identity and data portability.

Finally, Canada's diversity of technology talent and favourable immigration policies are providing the country one of its most important competitive advantages today. Canadian hubs have created an impressive number of tech jobs in recent years, and continuously acquiring and retaining this talent will be critical for them to maintain global competitiveness. The sudden slowdown in immigration due to COVID presents a potential talent risk to Canada given the country's demographics, but favourable policies currently give Canada an edge. As other trends solidified during COVID take shape, such as remote work, opportunity may also lie in tapping into this talent using novel initiatives such as virtual work permits.²¹⁴

Advance the Innovation Agenda

While this year's findings from our global benchmarking study highlighted the importance of building on Canada's strong talent base and trusted regulatory environment, continued ecosystem innovation will also be key.

Canadian incubators and accelerators remain well-represented in top global rankings. During the pandemic, these institutions stimulated communities while showing remarkable resilience. As businesses struggled, programs quickly evolved to serve emergency needs and support pandemic-related technology solutions focused on health and financial wellness. As recent trends in this area include both accelerated ecosystem involvement and increasing corporate interest, these innovation hubs may become an even more important linkage between Canadian academia and industry beyond the pandemic.

Two related concerns uncovered in this report, those being access to early-stage funding and the commercialization of domestic intellectual property at scale, could begin to be addressed by tapping Canada's incubators and accelerators as well.²¹⁵ In the context of the declining number of fintechs being founded, nurturing promising new ideas with seed capital and sound advice will likely become an even more important area of focus to maintain momentum. Yet despite world-class institutions and substantial public investments in research and training, Canada continues to struggle with scaling these startups into high-tech, homegrown multinationals. Closing this gap with leading fintech hubs will take a patient, coordinated effort across the ecosystem. Beyond incubators and accelerators, innovation policy is another possible area to consider.

Generally, Canada's regulatory quality makes it an excellent place to do business. It has been suggested, however, that certain frameworks – such as PIPEDA (Personal Information Protection and Electronic Documents Act) – may provide inadequate clarity as they pertain to modern concerns such as data portability and privacy.²¹⁶ Moving forward, further regulatory clarity on these topics, in close-knit collaboration with industry, may help expand the depth and breadth of the innovation foundation upon which sizable high-tech companies can be built. Such a foundation might also help clarify generally accepted standards for next-generation technologies, such as digital identity.

Further development of regulatory sandboxes could be one approach that benefits innovative companies while balancing the public interests of financial stability and security. Streamlining and expanding low-risk ways for fintechs and financial institutions to experiment and collaborate may also allow for accelerated time-to-market, giving the country more chances to develop leading services and employers. Such an approach has been successfully adopted by leading fintech hubs examined in our benchmarking study, such as Hong Kong, Singapore and London.

Strive for Global Ambitions

Canada is no stranger to punching above its weight on the global stage. Further accelerating the growth of Canada's financial services ecosystem will require not only cross-border talent but doubling down on international expertise and capital as well.

2020 was a lively year for globally minded Canadian fintechs. Not only did Canada claim seven spots on CB Insights' *2020 Fintech 250* list, but Mindbridge AI and Trulioo were represented on the World Economic Forum's *Technology Pioneers of 2020*, an industry-agnostic list of "future headline-makers addressing global issues with cutting-edge technology".²¹⁷ Despite travel restrictions, industry bodies even continued to facilitate virtual trade missions, such as Toronto Finance International's conferences with stakeholders in Tokyo, Singapore and the UAE.²¹⁸

Canadian fintechs are increasingly looking to grow beyond Canada with a "borderless" mentality, raising international investor interest in the Canadian ecosystem. Those looking to support and capitalize on promising early-stage opportunities last year included US-based Acceleprise, Plug and Play and Google, who all launched new Canadian incubator and accelerator programs in 2020. Foreign participation in Canadian fintech deals has also been a significant contributing factor to maintaining Canadian hubs' position as among the fastest growing in the world.

Due to the global pandemic, investors and startups have suffered from prolonged due diligence and sales cycle times; lockdowns and travel restrictions have been the primary culprit. As the global economy stabilizes, orchestrating new ways to tap the global market while maintaining ecosystem momentum are being explored.

Leveraging virtual platforms may be one solution. The Global Alliance Fintech Link co-developed by CIBC, Bank Leumi and National Australia Bank in 2019 is a good example.²¹⁹ Canadian incubators and accelerators also launched new virtual models last year to expand their digital reach. And facilitating

virtual due diligence and deal closure will be important to fintechs and investors looking to seize opportunities abroad. Given the abundance of digital adoption and virtual work brought about by COVID, doubling down on such platforms and models may enable Canadian ecosystem participants to manifest further international opportunities and dialogue.

As we look ahead beyond the pandemic, the Canadian financial services ecosystem remains poised for growth. While uncertainties may persist, by fostering further innovation,

collaboration and international expansion, ecosystem participants are well-positioned to support each other and the broader Canadian economy. Our analysis indicates that the leading fintechs, financial institutions and other industry players discussed above are adopting mindsets which will likely enable them to respond to accelerating trends with agility. As industry boundaries blur, we remain optimistic about the future potential of the financial services ecosystem in Canada, as well as the next generation of startups, institutions and partnerships set to play their part in driving Canadian hubs forward.



Appendix A:

Global Fintech Ecosystem Benchmarking Model and Methodology

Methodology

The objective of the benchmarking model is to rank the Canadian fintech ecosystem against other global fintech hubs on a set of quantitative metrics. These metrics were chosen based on their assumed impact on fintech hub development, as well as the consistency and availability of data across the fintech hubs included in the model.

The methodology of the Fintech Hub Benchmarking Model is comprised of five main sections:

a) Hubs Selection

We included 20 fintech hubs in the model, both at the city and country level, based predominantly on data showing where recent fintech activity is concentrated, as well as a Canadian-centric view to allow for a national comparison. Moreover, we wanted to have a reasonable selection of hubs across geographies, while at the same time having a larger sample of North American hubs to thoroughly cover regions in close proximity to Canadian hubs.

Country	Hub(s)
Australia	Sydney
Canada	Calgary
Canada	Montreal
Canada	Toronto (Greater Golden Horseshoe)
Canada	Vancouver (incl. Victoria, Surrey, Richmond)
China	China (Shanghai, Beijing)
China	Hong Kong
France	Paris
Germany	Berlin
India	India (Mumbai, New Delhi, Bangalore)
Israel	Tel Aviv
Japan	Tokyo
Singapore	Singapore
South Korea	Seoul
United Arab Emirates	Dubai
United Kingdom	London
United States	Boston
United States	Los Angeles
United States	New York
United States	Silicon Valley

b) Metrics and Groups Selection

46 individual metrics were used in the benchmarking model. These metrics were chosen to take into account their assumed impact on fintech hub development and the consistency and availability of data across the fintech hubs included in the model. Metrics were sourced from datasets maintained by various institutions, including the World Economic Forum, UN, ITU, World Bank, CB Insights and Crunchbase. These 46 individual metrics were grouped into sub-groups, which were subsequently grouped into five broad categories. These categories, in our opinion, adequately represent the different areas that influence the way fintech hubs tend to develop. The sub-groups and categories chosen were:

Government Support

- **General government support**

The fintech industry is predominantly comprised of early and growth-stage companies, for which it is important to have progressive, business-friendly policies — either when it comes to starting businesses or growing them.

- **Fintech-related support**

The financial services industry tends to be a heavily regulated one, so it can be beneficial for fintech startups to have a regulatory environment in alignment with and supportive of business ambitions (e.g. access to regulatory sandboxes).

Business Ecosystem Maturity

- **Ecosystem development**

Future hub development can be made easier by existing business infrastructure (e.g. innovation clusters, talent availability, entrepreneurial resources, etc.)

- **Ecosystem attractiveness**

A given hub's ecosystem should be generally attractive to new business ventures — attracting both the necessary capital (e.g. FDI) and talent (e.g. quality of life, cost of living, etc.).

Fintech Activity and Financing

- **Fintech activity**

This metric accounts for the fact that it is more straightforward to develop an incremental fintech startup if there is already ongoing fintech activity within the hub (e.g. due to a growing number of potential employees with fintech experience, proximity to sophisticated fintech investors, etc.).

- **Financing options**

Fintech companies and startups need to have access to different financing options. Based on their growth stage this may include venture capital, bank, or capital markets financing.

Talent Pool and Innovation

- **Talent pool**

Technology startups rely to a great extent on a readily available pool of skilled resources (e.g. with science, technology, engineering or mathematics training). This can be grown either internally within a hub or attracted from abroad.

- **Innovation capacity**

This metric measures a hub's ability to translate research/academic efforts into true industrial innovation and commercialization opportunities vs. pure educational capacity.

Technology availability and adoption

Two aspects are important for fintech startups to accelerate growth and development: 1) access to reliable technology platforms and innovation infrastructure, and 2) a large pool of potential customers actively using new technologies to adequately scale products and services.

c) Metrics Normalization

As the raw data for the individual metrics were of different units and scales, data rescaling was applied to each of the datasets. Each numeric variable was scaled in the range [0,100] by using one of the two normalization formulas:

$$x_{new} = \frac{x - x_{min}}{x_{max} - x_{min}} * 100 \quad (\text{for metrics using normal scale}) \text{ or}$$

$$x_{new} = \left(1 - \frac{x - x_{min}}{x_{max} - x_{min}}\right) * 100 \quad (\text{for metrics using inverted scale})$$

Where:

- x is the value of the variable before normalization.
- x_{new} is the value of the variable after normalization.
- x_{min} is the lowest value for a particular metric before normalization.
- x_{max} is the highest value for a particular metric before normalization.

After rescaling, a score of 0 means the lowest possible result while a score of 100 means the highest possible result for each single metric.

d) Group Scores

The index was calculated by using expert weighting based on the assessment of the importance of a given factor for the overall score supported with the regression analysis that proved the weighting to be valid in describing hubs' maturities. For each sub-group, the score was obtained by calculating the weighted average of the normalized values for all metrics in each sub-group. Then, scores for groups were calculated by using the weighted average of normalized values for all sub-groups included in each of the five main components.

e) Regression Analysis

Regression analysis was used to assess the correlation between the overall index (obtained via normalizing and creating weighted averages of the 46 metrics — which collectively represent fintech hub development maturity drivers) with fintech activity (measured by number of deals) in the most recent year for which complete data was available in each of the hubs analyzed. The regression specification used was:

$$D_{i,t} = \alpha + \beta * I_{i,t}(\kappa) + \varepsilon_{i,t}$$

$$i = 1, \dots, 20$$

$$t = 1$$

Where:

- i is each of the 20 regions
- t is time 2019
- D is global share of number of fintech deals in given region
- α is a constant term
- I is the overall score of the index
- κ is a set of explanatory metrics used to calculate the index
- ε is an error term

The regression analysis showed significant relation between the Index and defined output variable, confirmed by the following statistics:

- $R^2=65.4\%$
- Adjusted $R^2=63.5\%$
- F-statistic = 33.99
- Probability (F-statistic) = 0.00%
- Index score t-statistic = 5.83
- Probability (t-statistic) = 0.00%

Appendix B:

Definition of Funding Types

Angel: An angel round is typically a small round designed to get a new company off the ground. Investors in an angel round include individual angel investors, angel investor groups, friends and family.

Pre-Seed: A pre-seed round is a pre-institutional seed round that either has no institutional investors or is a very low amount, often below \$150k.

Seed: Seed rounds are among the first rounds of funding a company will receive, generally while the company is young and working to gain traction. Round sizes can vary widely, generally between \$10k – \$2 million, though larger seed rounds have become more common in recent years. A seed round typically comes after an angel round (if applicable) and before a company's Series A round.

Series A and Series B rounds are funding rounds for earlier stage companies and range on average between \$1 million – \$30 million.

Series C rounds and onwards are for later stage and more established companies. These rounds are usually \$10 million+ and are often much larger.

References

- ¹ CB Insights. (2020). The State Of Fintech: Investment & Sector Trends To Watch. Retrieved from <https://www.cbinsights.com/research/report/fintech-trends-q3-2020/>
- ² CB Insights. (2020). State Of Fintech Preview: Investment Trends To Watch. Retrieved from <https://www.cbinsights.com/research/report/fintech-trends-q4-2020/>
- ³ CB Insights. (2020). State Of Fintech Preview: Investment Trends To Watch. Retrieved from <https://www.cbinsights.com/research/report/fintech-trends-q4-2020/>
- ⁴ Accenture. (2020). Analysis of CB Insights Investment Data.
- ⁵ Willhelm, A. (2020, June 9). Acceleprise announces 26 SaaS startups from its trio of accelerators. Retrieved from TechCrunch: <https://techcrunch.com/2020/06/09/acceleprise-announces-26-saas-startups-from-its-trio-of-accelerators/>
- ⁶ Schwartz, Z. (2020, September 8). Brightspark looking to upend Canadian venture capital with \$60-million fund and new financial instruments. Retrieved from The Logic <https://thelogic.co/news/exclusive/brightspark-looking-to-upend-canadian-venture-capital-with-60-million-fund-and-new-financial-instruments/>
- ⁷ CB Insights. (2020). State Of Fintech Preview: Investment Trends To Watch. Retrieved from <https://www.cbinsights.com/research/report/fintech-trends-q4-2020/>
- ⁸ CVCA. (2020, November 26). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - Q3 2020. Retrieved from <https://www.cvca.ca/research-insight/market-reports/q3-2020-canadian-vc-pe-market-overview/>
- ⁹ Global Alliance Fintech Link. (n.d.). Are you a Fintech looking to partner with an innovative bank? Retrieved from <https://globalfintechlink.com/>
- ¹⁰ Simpson, M. (2020, December 8). FORMER KOHO CTO, HEAD OF UBER MONEY LAUNCH NEW FINTECH STARTUP WITH \$15.8 MILLION CAD SEED ROUND. Retrieved from <https://betakit.com/former-koho-cto-head-of-uber-money-launch-new-fintech-startup-with-15-8-million-seed-round>
- ¹¹ CB Insights. (2020). The Fintech 250: The Top Fintech Companies Of 2020. Retrieved from cbinsights.com: <https://www.cbinsights.com/research/report/fintech-250-startups-most-promising/>
- ¹² Yoon, S., & Hillyer, M. (2020, June 16). These are the World Economic Forum's Technology Pioneers of 2020. Retrieved from weforum.org: <https://www.weforum.org/agenda/2020/06/technology-pioneers-2020/>
- ¹³ Galang, J. (2019, October 7). 12 CANADIAN FINTECH STARTUPS CHOSEN TO EMBARK ON UK TRADE MISSION. Retrieved from Betakit: <https://betakit.com/12-canadian-fintech-startups-chosen-to-embark-on-uk-trade-mission/>
- ¹⁴ Kirkwood, I. (2020, July 20). FINTECH STARTUP MYLO REBRANDS TO MOKA, LAUNCHES IN FRANCE AS PART OF EUROPEAN EXPANSION. Retrieved from Betakit: <https://betakit.com/fintech-startup-mylo-rebrands-to-moka-launches-in-france-as-part-of-european-expansion/>
- ¹⁵ TFI. (2020, October 13). Call for Canadian FinTechs: Opportunity to join funded FinTech Missions. Retrieved from <https://tfi.ca/news/call-for-canadian-fintechs-opportunity-to-join-funded-fintech-missions>
- ¹⁶ Kirkwood, I. (2020, November 18). CHIME THE LATEST US TECH COMPANY TO EXPAND TO VANCOUVER. Retrieved from <https://betakit.com/chime-the-latest-us-tech-company-to-expand-to-vancouver>
- ¹⁷ Orton, T. (2020, January 23). MasterCard opening \$510m cyber security centre in Vancouver. Retrieved from BIV: <https://biv.com/article/2020/01/mastercard-opening-510m-cyber-security-centre-vancouver>
- ¹⁸ Simpson, M. (2020, September 28). AMAZON LOOKING TO CREATE 3,500 JOBS IN TORONTO AND VANCOUVER. Retrieved from <https://betakit.com/amazon-looking-to-create-3500-jobs-in-toronto-and-vancouver/>
- ¹⁹ Vu, V., Lamb, C., & Zafar, A. (2019). Who Are Canada's Tech Workers? Brookfield Institute. Retrieved from <https://brookfieldinstitute.ca/wp-content/uploads/FINAL-Tech-Workers-ONLINE.pdf>
- ²⁰ Simpson, M. (2019, November 20). ALBERTA INNOVATES TO LAYOFF 125 EMPLOYEES FOLLOWING \$76 MILLION BUDGET CUT. Retrieved from Betakit: <https://betakit.com/alberta-innovates-to-layoff-125-employees-following-76-million-budget-cut/>
- ²¹ Simpson, M. (2020, May 7). WITH \$73 MILLION CAD, SYMEND CLOSES ONE OF THE LARGEST SERIES B ROUNDS IN RECENT ALBERTA HISTORY. Retrieved from BetaKit: <https://betakit.com/with-73-million-cad-symend-closes-one-of-the-largest-series-b-rounds-in-recent-alberta-history/>
- ²² Kirkwood, I. (2020, June 26). CALGARY FINTECH STARTUP HELCIM DEVELOPS OWN PAYMENT INFRASTRUCTURE, FOLLOWING IN FOOTSTEPS OF STRIPE, SQUARE. Retrieved from <https://betakit.com/calgary-fintech-startup-helcim-develops-own-payment-infrastructure-following-in-footsteps-of-stripe-square/>
- ²³ Simpson, M. (2020, December 16). NEO FINANCIAL REVEALS \$50 MILLION TOTAL FINANCING AS STARTUP EXPANDS NATIONALLY. Retrieved from <https://betakit.com/neo-financial-reveals-50-million-total-financing-as-startup-expands-nationally/>
- ²⁴ Kirkwood, I. (2019, June 10). DESJARDINS LAUNCHES \$45 MILLION FUND TO SUPPORT FINTECH STARTUPS. Retrieved from BetaKit: <https://betakit.com/desjardins-launches-45-million-fund-to-support-fintech-startups/>

- ²⁵ Finance Montreal. (2019, October 23). AMF/Finance Montreal To Set Up University Fintech Chair. Retrieved from Finextra: <https://www.finextra.com/pressarticle/80341/amffinance-montreal-donate-2-million-to-set-up-university-fintech-chair>
- ²⁶ Coles, T. (2019, September 28). Verafin's quiet, huge success: Canada's largest venture funding deal goes to an N.L. company. Retrieved from CBC: <https://www.cbc.ca/news/canada/newfoundland-labrador/verafin-capital-funding-1.5297914>
- ²⁷ McLean, S. (2020, November 19). NASDAQ ACQUIRES ST. JOHN'S BASED VERAFIN FOR \$2.75 BILLION USD. Retrieved from <https://betakit.com/nasdaq-acquires-st-johns-based-verafin-for-2-75-billion-usd>
- ²⁸ Accenture. (2020). Select interviews with industry investors and executives conducted as part of this report.
- ²⁹ Atlantic Fintech. (n.d.). Atlantic Canada at a glimpse. Retrieved from <http://atlanticfintech.ca/about/>
- ³⁰ LexisNexis. (2019). LexisNexis Risk Solutions 2019 True Cost of AML Compliance Study: United States & Canada Edition.
- ³¹ Coles, T. (2019, September 28). Verafin's quiet, huge success: Canada's largest venture funding deal goes to an N.L. company. Retrieved from CBC: <https://www.cbc.ca/news/canada/newfoundland-labrador/verafin-capital-funding-1.5297914>
- ³² Fintech Global. (n.d.). REGTECH100 COMPANIES 2020. Retrieved from <https://fintech.global/regtech100/#companies>
- ³³ Conquest Planning. (2020, February 19). Conquest Planning raises \$3 million in seed funding to improve financial planning. Retrieved from <https://www.newswire.ca/news-releases/conquest-planning-raises-3-million-in-seed-funding-to-improve-financial-planning-895797573.html>
- ³⁴ StatCan. (2020, December 11). National balance sheet and financial flow accounts, third quarter 2020. Retrieved from <https://www150.statcan.gc.ca/n1/daily-quotidien/201211/dq201211a-eng.htm>
- ³⁵ Financial Consumer Agency of Canada. (2019). Canadians and their Money: Key Findings from the 2019 Canadian Financial Capability Survey. Retrieved from <https://www.canada.ca/en/financial-consumer-agency/programs/research/canadian-financial-capability-survey-2019.html>
- ³⁶ CBRE Research. (2020). 2020 Scoring Tech Talent. Retrieved from <http://cbre.vo.llnwd.net/grgservices/secure/US%202020%20Tech%20Talent%20July.pdf?e=1597937324&h=a2a5fdd5cf0536fb07ae33571eb6e389>
- ³⁷ CBRE Research. (2020). 2020 Scoring Tech Talent. Retrieved from <http://cbre.vo.llnwd.net/grgservices/secure/US%202020%20Tech%20Talent%20July.pdf?e=1597937324&h=a2a5fdd5cf0536fb07ae33571eb6e389>
- ³⁸ Accenture. (2020). Select interviews with industry investors and executives conducted as part of this report.
- ³⁹ Simpson, M. (2020, September 28). AMAZON LOOKING TO CREATE 3,500 JOBS IN TORONTO AND VANCOUVER. Retrieved from <https://betakit.com/amazon-looking-to-create-3500-jobs-in-toronto-and-vancouver/>
- ⁴⁰ Silcoff, S. (2018, May 3). Canada facing 'brain drain' as young tech talent leaves for Silicon Valley. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/business/technology/article-canada-facing-brain-drain-as-young-tech-talent-leaves-for-silicon/>
- ⁴¹ Crane, D. (2020, September 14). Canada needs better ways to transform early stage companies into future global champions. Retrieved from The Hill Times: <https://www.hilltimes.com/2020/09/14/263060/263060>
- ⁴² CBRE Research. (2020). 2020 Scoring Tech Talent. Retrieved from <http://cbre.vo.llnwd.net/grgservices/secure/US%202020%20Tech%20Talent%20July.pdf?e=1597937324&h=a2a5fdd5cf0536fb07ae33571eb6e389>
- ⁴³ C100. (2019). Impact Report 2019 - 2020. Retrieved from https://static1.squarespace.com/static/55242ebce4b0c0931a649653/t/5efe2b3a4b4ac711e47a7107/1593715537749/c100_ImpactReport_2020_Digi_Final.pdf
- ⁴⁴ OECD. (2019). Recruiting Immigrant Workers: Canada 2019. OECD. Retrieved from <https://www.oecd.org/migration/mig/recruiting-immigrant-workers-canada-2019-4abab00d-en.htm>
- ⁴⁵ Gardner, L. (2020, June 25). Canadian tech world eyes foreign workers as Trump limits visas. Retrieved from Politico: <https://www.politico.com/news/2020/06/25/canadian-tech-world-foreign-workers-visas-339616>
- ⁴⁶ Hyder, G. (2020, September 7). Canada needs to get its stalled immigration system back on track. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/opinion/article-canada-needs-to-get-its-stalled-immigration-system-back-on-track/>
- ⁴⁷ Prospect. (2020). The State of Startup Talent: Q1 to COVID-19. Retrieved from <https://www.prospect.fyi/reports>
- ⁴⁸ Kirkwood, I. (2020, June 22). BENCH RE-HIRES WORKERS AS SALES REBOUND FOLLOWING SHIFT TO HELPING US BUSINESSES WITH COVID RELIEF. Retrieved from Betakit: <https://betakit.com/bench-re-hires-workers-as-sales-rebound-following-shift-to-helping-us-businesses-with-covid-relief/>
- ⁴⁹ Evans, I. (2020, June 3). How Canada's fintechs are providing financial first aid. Retrieved from MaRS: <https://www.marsdd.com/magazine/how-canadas-fintechs-are-providing-financial-first-aid-covid-19/>
- ⁵⁰ Kirkwood, I. (2020, June 26). FUNDTHROUGH COMMITS \$10 MILLION TO HELP SMALL BUSINESSES AFTER FEDERAL GOVERNMENT REJECTS FINTECH COVID-19 RELIEF PROPOSALS. Retrieved from <https://betakit.com/fundthrough-commits-10-million-to-help-small-businesses-after-federal-government-rejects-fintech-covid-19-relief-proposals/>
- ⁵¹ Kirkwood, I. (2020, May 25). KOHO PARTNERING WITH HYR TO OFFER EARLY ACCESS TO PAYCHEQUES AND GOVERNMENT SUPPORT. Retrieved from Betakit: <https://betakit.com/koho-partnering-with-hyr-to-offer-early-access-to-paycheques-and-government-support/>

- ⁵² Kirkwood, I. (2020, May 28). CANADIAN STARTUP BOSS INSIGHTS HELPING AMERICAN SMALL BUSINESSES NAVIGATE PPP LOANS. Retrieved from <https://betakit.com/canadian-startup-helping-american-small-businesses-navigate-ppp-loans/>
- ⁵³ Nesto. (n.d.). Get your mortgage online, hassle free. Retrieved from https://www.nesto.ca/dialogue_en/
- ⁵⁴ Kirkwood, I. (2020, April 30). VANCOUVER FINTECH STARTUP WORKING WITH FINANCIAL INSTITUTIONS TO FACILITATE FEDERAL COVID-19 LOANS. Retrieved from Betakit: <https://betakit.com/vancouver-fintech-startup-working-with-financial-institutions-to-facilitate-federal-covid-19-loans/>
- ⁵⁵ CVCA. (2020, November 26). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - Q3 2020. Retrieved from <https://www.cvca.ca/research-insight/market-reports/q3-2020-canadian-vc-pe-market-overview/>
- ⁵⁶ CVCA. (2019). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - YTD Q32019. Retrieved from https://central.cvca.ca/wp-content/uploads/2019/12/CVCA_EN_Canada_VC_Q3-2019_Final2.pdf
- ⁵⁷ Zochodne, G. (2020, June 24). Canadian venture-capital investment is down, except when it comes to companies with COVID-19 tie-in. Retrieved from Financial Post: <https://financialpost.com/news/fp-street/canadian-venture-capital-investment-is-down-except-when-it-comes-to-companies-with-covid-19-tie-in>
- ⁵⁸ CVCA. (2020, June 8). Canadian VC & PE Market Overview. Retrieved from CVCA.ca: <https://www.cvca.ca/research-insight/market-reports/2020-q1-vc-pe-canadian-market-overview>
- ⁵⁹ CVCA. (2020). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - H1 2020. Retrieved from <https://www.cvca.ca/research-insight/market-reports/2020-h1-vc-pe-canadian-market-overview/>
- ⁶⁰ CVCA. (2020, November 26). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - Q3 2020. Retrieved from <https://www.cvca.ca/research-insight/market-reports/q3-2020-canadian-vc-pe-market-overview/>
- ⁶¹ CVCA. (2019). VENTURE CAPITAL CANADIAN MARKET OVERVIEW - YTD Q32019. Retrieved from https://central.cvca.ca/wp-content/uploads/2019/12/CVCA_EN_Canada_VC_Q3-2019_Final2.pdf
- ⁶² Accenture. (2020). Analysis of CB Insights Investment Data.
- ⁶³ Kirkwood, I. (2020, June 10). TOUCHBISTRO HIRES NEW CFO, KEEPS EYE ON IPO DESPITE PANDEMIC MARKET UNCERTAINTY. Retrieved from <https://betakit.com/touchbistro-hires-new-cfo-keeps-eye-on-ipo-despite-pandemic-market-uncertainty/>
- ⁶⁴ Kirkwood, I. (2020, April 24). BDC CAPITAL REVEALS MORE DETAILS ON INVESTMENT MATCHING PROGRAM FOR VC-BACKED COMPANIES. Retrieved from BetaKit: <https://betakit.com/bdc-capital-reveals-more-details-on-investment-matching-program-for-vc-backed-companies/>
- ⁶⁵ Silcoff, S. (2020, September 17). Nuvei stock soars after largest tech IPO in TSX history. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/business/article-nuvei-stock-soars-in-ipo-making-it-the-latest-canadian-tech-firm-to/>
- ⁶⁶ Hemmdai, M. et al. (2020, June 10). COVID-19 roundup: New Liberal pandemic bill kicked to the CERB. Retrieved from <https://thelogic.co/news/covid-19-roundup-new-liberal-pandemic-bill-kicked-to-the-cerb/>
- ⁶⁷ Kirkwood, I. (2020, June 17). EDC PREPARED TO COMMIT \$250 MILLION TO INVESTMENT MATCHING PROGRAM. Retrieved from BetaKit: <https://betakit.com/edc-prepared-to-commit-250-million-to-investment-matching-program/>
- ⁶⁸ Rastello, S. (2020, June 24). Quebec seeks to speed recovery by buying shares in local firms. Retrieved from BNN Bloomberg: <https://www.bnnbloomberg.ca/quebec-seeks-to-speed-recovery-by-buying-shares-in-local-firms-1.1455636>
- ⁶⁹ Schwartz, Z. (2020, June 25). Ontario considering proposal to launch matching fund for VC investments. Retrieved from The Logic: <https://thelogic.co/news/exclusive/ontario-considering-proposal-to-launch-matching-fund-for-vc-investments/>
- ⁷⁰ Accenture. (2020). Analysis of CB Insights Investment Data.
- ⁷¹ Accenture. (2020). Select interviews with industry investors and executives conducted as part of this report.
- ⁷² Kirkwood, I. (2019, June 10). DESJARDINS LAUNCHES \$45 MILLION FUND TO SUPPORT FINTECH STARTUPS. Retrieved from BetaKit: <https://betakit.com/desjardins-launches-45-million-fund-to-support-fintech-startups/>
- ⁷³ Kirkwood, I. (2020, February 25). GEORGIAN PARTNERS RAISES FIRST CANADIAN VENTURE FUND VALUED AT OVER \$1 BILLION CAD. Retrieved from BetaKit: <https://betakit.com/georgian-partners-raises-first-canadian-venture-fund-valued-at-over-1-billion-cad/>
- ⁷⁴ Accenture. (2020). Analysis of CB Insights Investment Data.
- ⁷⁵ Invest in Canada. (n.d.). CANADA — A LEADER IN ARTIFICIAL INTELLIGENCE (AI). Government of Canada.
- ⁷⁶ Accenture. (2020). Accenture analysis of CB Insights investment data.
- ⁷⁷ Accenture. (2020). Accenture analysis of CB Insights investment data.
- ⁷⁸ Accenture. (2020). Select interviews with industry investors and executives conducted as part of this report.
- ⁷⁹ CB Insights. (2020). State Of Fintech Preview: Investment Trends To Watch. Retrieved from <https://www.cbinsights.com/research/report/fintech-trends-q4-2020/>
- ⁸⁰ Goswami, A. P. (2020). Neo and Challenger Bank Market by Service Type. Allied Market Research.
- ⁸¹ Saminather, N. &. (2020, February 22). RBC to launch U.S. consumer bank betting on wealthy clients. Retrieved from Reuters: <https://ca.reuters.com/article/topNews/idCAKBN20F1MF>
- ⁸² Bradshaw, J. (2020, September 14). Loblaw moves back into banking three years after cutting ties with CIBC. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/business/article-loblaw-moves-back-into-banking-three-years-after-cutting-ties-with/>

- ⁸³ CCUA. (2020, March). 2019-2020 Community & Economic Impact Report. Retrieved from <https://ccua.com/resources/2019-2020-community-economic-impact-report/>
- ⁸⁴ Simpson, M. (2019, November 27). REVOLUT IS ROLLING OUT EARLY ACCOUNT ACCESS AHEAD OF CANADIAN LAUNCH. Retrieved from Betakit: <https://betakit.com/revolut-is-rolling-out-early-account-access-ahead-of-canadian-launch/>
- ⁸⁵ Browne, R. (2020, December 8). Revolut, Europe's \$5.5 billion digital bank, quietly broke even in November. Retrieved from <https://www.cnn.com/2020/12/08/digital-bank-revolut-breaks-even-in-november.html>
- ⁸⁶ Son, H. (2020, September 3). Start-up co-founded by ex-Goldman trader is first fintech to complete takeover of a national bank. Retrieved from CNBC: <https://www.cnn.com/2020/09/03/start-up-founded-by-ex-goldman-trader-becomes-first-fintech-to-complete-takeover-of-a-national-bank.html>
- ⁸⁷ Son, H. (2020, October 12). European fintech giant Revolut is close to applying for a bank charter in California, sources say. Retrieved from <https://www.cnn.com/2020/10/12/european-fintech-giant-revolut-is-close-to-applying-for-a-bank-charter-in-california.html>
- ⁸⁸ Kirkwood, I. (2020, December 4). SHOPIFY BALANCE TO BE POWERED BY STRIPE, EVOLVE BANCORP. Retrieved from <https://betakit.com/shopify-balance-to-be-powered-by-stripe-evolve-bancorp>
- ⁸⁹ Zochodne, G. (2020, September 10). Big bank CEOs see fintech threat 'diminishing' despite pandemic. Retrieved from <https://financialpost.com/news/fp-street/big-bank-ceos-see-fintech-threat-diminishing-despite-pandemic>
- ⁹⁰ Zochodne, G. (2020, September 10). Big bank CEOs see fintech threat 'diminishing' despite pandemic. Retrieved from <https://financialpost.com/news/fp-street/big-bank-ceos-see-fintech-threat-diminishing-despite-pandemic>
- ⁹¹ DBS. (n.d.). DBS Marketplace. Retrieved from DBS.com: <https://www.dbs.com.sg/personal/marketplace/>
- ⁹² UBI Global. (2020). World Benchmark Report 19-20. UBI Global
- ⁹³ Government of Canada. (2019, April 18). Evaluation of the Canadian Accelerator and Incubator Program (CAIP). Retrieved from Government of Canada: <https://nrc.canada.ca/en/corporate/planning-reporting/evaluation-canada-accelerator-incubator-program-caip-0>
- ⁹⁴ UBI Global. (2020). World Benchmark Report 19-20. UBI Global.
- ⁹⁵ Intuit. (n.d.). Intuit Prosperity Accelerator. Retrieved from <https://www.intuit.com/ca/prosperity-accelerator/>
- ⁹⁶ Li, T. (2020, February 7). Google Announces Startup Accelerator In Waterloo. Retrieved from IT World Canada: <https://www.itworldcanada.com/article/google-announces-startup-accelerator-and-new-offices-in-toronto/427021>
- ⁹⁷ Kirkwood, I. (2020, August 20). GOOGLE REVEALS NINE STARTUPS JOINING FIRST COHORT OF CANADIAN ACCELERATOR Retrieved from <https://betakit.com/google-reveals-nine-startups-joining-first-cohort-of-canadian-accelerator/>
- ⁹⁸ Colliers. (2020, May 5). Colliers proptech companies deliver innovative, value-added commercial real estate solutions. Retrieved from <https://www.globenewswire.com/news-release/2020/05/05/2027553/0/en/Colliers-proptech-companies-deliver-innovative-value-added-commercial-real-estate-solutions.html>
- ⁹⁹ Colliers. (2020, May 5). Colliers proptech companies deliver innovative, value-added commercial real estate solutions. Retrieved from <https://www.globenewswire.com/news-release/2020/05/05/2027553/0/en/Colliers-proptech-companies-deliver-innovative-value-added-commercial-real-estate-solutions.html>
- ¹⁰⁰ CBRE Research. (2020). 2020 Scoring Tech Talent. Retrieved from <http://cbre.vo.llnwd.net/grgservices/secure/US%202020%20Tech%20Talent%20July.pdf?e=1597937324&h=a2a5fdd5cf0536fb07ae33571eb6e389>
- ¹⁰¹ Kirkwood, I. (2019, October 2). Accelaprise Officially Announces Plans To Launch Toronto Accelerator. Retrieved from BetaKit: <https://betakit.com/acceleprise-officially-announces-plans-to-launch-toronto-accelerator/>
- ¹⁰² Wilhelm, A. (2020, June 9). Accelaprise announces 26 SaaS startups from its trio of accelerators. Retrieved from TechCrunch: <https://techcrunch.com/2020/06/09/acceleprise-announces-26-saas-startups-from-its-trio-of-accelerators/>
- ¹⁰³ Plug and Play. (2020, June 10). Plug and Play Partners with BASF To Open New Office in Greater Toronto Area. Retrieved from PR Newswire: <https://www.prnewswire.com/news-releases/plug-and-play-partners-with-basf-to-open-new-office-in-greater-toronto-area-301073519.html>
- ¹⁰⁴ CDL. (n.d.). CDL Recovery. Retrieved from www.creative destructionlab.com/program/recovery/
- ¹⁰⁵ Accelerator Centre. (2020, April 21). News Release: Accelerator Centre launches Ontario's COVID-19 Support and Recovery Cohort of seed funding program. Retrieved from www.acceleratorcentre.com/news/news-release
- ¹⁰⁶ Kirkwood, I. (2020, August 4). TWO CANADIAN STARTUPS AMONG HOLT FINTECH ACCELERATOR'S 2020 COHORT. Retrieved from <https://betakit.com/two-canadian-startups-among-holt-fintech-accelerators-2020-cohort>
- ¹⁰⁷ Simpson, M. (2020, April 22). OneEleven Announces It Is Permanently Ceasing Operations. Retrieved from BetaKit: <https://betakit.com/oneeleven-announces-it-is-permanently-ceasing-operations/>
- ¹⁰⁸ Soltys, D., & Simpson, M. (2020, June 10). OXFORD REPORTEDLY MOVING FORWARD WITH OCE PROPOSAL FOR ONEELEVEN. Retrieved from Betakit: <https://betakit.com/oxford-reportedly-moving-forward-with-oce-proposal-for-oneeleven/>
- ¹⁰⁹ O'Kane, J. (2020, August 18). Ontario Centres of Excellence to take over beleaguered OneEleven startup hub brand. Retrieved from The Globe and Mail: <https://www.theglobeandmail.com/business/article-ontario-centres-of-excellence-to-take-over-embattled-oneeleven-startup/>
- ¹¹⁰ Ryerson University. (2020, May 21). Ryerson University Consolidates DMZ and RFI. Retrieved from Ryerson Today:

- <https://www.ryerson.ca/news-events/news/2020/05/ryerson-university-consolidates-dmz-and-rfi-to-better-serve-and-support-startups/>
- ¹¹¹ Schwartz, Z. (2020, September 8). Brightspark looking to upend Canadian venture capital with \$60-million fund and new financial instruments. Retrieved from The Logic <https://thelogic.co/news/exclusive/brightspark-looking-to-upend-canadian-venture-capital-with-60-million-fund-and-new-financial-instruments/>
 - ¹¹² Mascarenhas, N. (2020, July 27). Without desks and a demo day, are accelerators worth it? Retrieved from Techcrunch: <https://techcrunch.com/2020/07/27/without-desks-and-a-demo-day-are-accelerators-worth-it/>
 - ¹¹³ DMZ. (2020, May 26). DMZ Innisfil To Create A New Wave Of Scalable Business. Retrieved from DMZ: <https://dmz.ryerson.ca/press-releases/town-of-innisfil-partners-with-dmz-to-scale-startups-and-increase-government-procurement/>
 - ¹¹⁴ UBI Global. (2020). World Benchmark Report 19-20. UBI Global.
 - ¹¹⁵ Kirkwood, I. (2020, July 24). City of Toronto Commits \$250,000 to Expansion of Black Innovation Fellowship. Retrieved from Betakit: <https://betakit.com/city-of-toronto-commits-250000-to-expansion-of-black-innovation-fellowship/>
 - ¹¹⁶ SheEO. (n.d.). WHAT IS SHEEO? Retrieved from sheeo.world: <https://sheeo.world/about-us/>
 - ¹¹⁷ Impact Hub Ottawa. (n.d.). ABOUT IMPACT HUB OTTAWA. Retrieved from ottawa.impacthub.net: <https://ottawa.impacthub.net/about/>
 - ¹¹⁸ Competition Bureau Canada. (2018, February 14). Technology-led innovation and emerging services in the Canadian financial services sector. Retrieved from Government of Canada: <https://www.ic.gc.ca/eic/site/cb-bc.nsf/eng/04315.html>
 - ¹¹⁹ Competition Bureau Canada. (2018, September 26). Canada's progress in FinTech. Retrieved from Government of Canada: <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04392.html>
 - ¹²⁰ Payments Canada. (2017, December). Modernization Target State. Retrieved from Payments Canada: https://www.payments.ca/sites/default/files/21-Dec-17/modernization_target_state_en_final.pdf
 - ¹²¹ Simpson, M. (2020, November 12). PAYMENTS CANADA TAPS MASTERCARD'S VOCALINK AS PROVIDER FOR NEW REAL-TIME PAYMENTS SYSTEM. Retrieved from <https://betakit.com/payments-canada-taps-mastercards-vocalink-as-provider-for-new-real-time-payments-system/>
 - ¹²² CSA. (n.d.). CSA Regulatory Sandbox. Retrieved from Canadian Securities Administrators: https://www.securities-administrators.ca/industry_resources.aspx?id=1588
 - ¹²³ Langton, J. (2020, August 7). CSA allows Wealthsimple to test crypto platform. Retrieved from <https://www.investmentexecutive.com/news/from-the-regulators/csa-allows-wealthsimple-to-test-crypto-platform/>
 - ¹²⁴ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
 - ¹²⁵ Kirkwood, I. (2020, November 2). ONTARIO SECURITIES COMMISSION TO LAUNCH REGULATORY SANDBOX FOR STARTUPS. Retrieved from <https://betakit.com/ontario-securities-commission-to-launch-regulatory-sandbox-for-startups/>
 - ¹²⁶ Kirkwood, I. (2020, November 4). FOLLOWING DELAY, FEDERAL GOVERNMENT TO REOPEN VIRTUAL CONSULTATIONS ON OPEN BANKING. Retrieved from <https://betakit.com/following-delay-federal-government-to-reopen-virtual-consultations-on-open-banking>
 - ¹²⁷ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
 - ¹²⁸ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
 - ¹²⁹ TD. (2020, August 7). TD enters into North American data-access agreement with Finicity. Retrieved from td.mediaroom.com: http://td.mediaroom.com/2020-08-07-TD-enters-into-North-American-data-access-agreement-with-Finicity
 - ¹³⁰ Tory's LLP. (2019, June 3). Fed's Digital Charter and proposed modernization of PIPEDA. Retrieved from <https://www.torys.com/insights/publications/2019/06/feds-digital-charter-and-proposed-modernization-of-pipeda>
 - ¹³¹ Kirkwood, I. (2019, November 18). LAGGING REGULATION, CONSUMER TRUST INHIBITING FINTECH ADOPTION IN CANADA. Retrieved from Betakit: <https://betakit.com/lagging-regulation-consumer-trust-inhibiting-fintech-adoption-in-canada/>
 - ¹³² Stephenson, A. (2020, April 17). Federal government unveils \$250M to help tech firms weather COVID-19. Retrieved from CalgaryHerald.com: <https://calgaryherald.com/business/local-business/federal-government-unveils-250m-to-help-tech-firms-weather-covid-19>
 - ¹³³ Simpson, M. (2020, May 1). MINISTER JOLY SAYS DETAILS ON RDA FUNDING EXPECTED SOON, DISCUSSES FEDERAL SUPPORT OF TECH SECTOR. Retrieved from Betakit: <https://betakit.com/minister-joly-says-details-on-rda-funding-expected-soon-discusses-federal-support-of-tech-sector/>
 - ¹³⁴ Odynski, M. (2020, June 18). Banking's New Normal: TD Chief Digital Officer Rizwan Khalfan. Retrieved from <https://www.borndigital.com/2020/06/18/bankings-new-normal-td-chief-digital-officer-rizwan-khalfan>

- ¹³⁵ Canadian Bankers Association. (2020, December 23). Focus: Fast facts on bank measures in response to the COVID-19 pandemic. Retrieved from <https://cba.ca/fast-facts-on-bank-measures-in-response-to-the-covid-19-pandemic>
- ¹³⁶ Schwartz, Z. (2020, June 17). Ottawa rejects fintechs' proposal for distributing COVID-19 aid for businesses. Retrieved from <https://thelogic.co/news/exclusive/ottawa-rejects-fintechs-proposal-for-distributing-covid-19-aid-for-businesses/>
- ¹³⁷ Schwartz, G. (2020, June 21). Why governments should include fintech lenders to deliver support during COVID-19. Retrieved from <https://www.theglobeandmail.com/business/commentary/article-why-governments-should-include-fintech-lenders-to-deliver-support/>
- ¹³⁸ Kirkwood, I. (2020, June 26). FUNDTHROUGH COMMITS \$10 MILLION TO HELP SMALL BUSINESSES AFTER FEDERAL GOVERNMENT REJECTS FINTECH COVID-19 RELIEF PROPOSALS. Retrieved from <https://betakit.com/fundthrough-commits-10-million-to-help-small-businesses-after-federal-government-rejects-fintech-covid-19-relief-proposals/>
- ¹³⁹ Kirkwood, I. (2020, April 30). VANCOUVER FINTECH STARTUP WORKING WITH FINANCIAL INSTITUTIONS TO FACILITATE FEDERAL COVID-19 LOANS. Retrieved from Betakit: <https://betakit.com/vancouver-fintech-startup-working-with-financial-institutions-to-facilitate-federal-covid-19-loans/>
- ¹⁴⁰ Brand Finance. (2019, May 1). Canada's Top 100 Most Valuable Brands Revealed. Retrieved from <https://www.newswire.ca/news-releases/canada-s-top-100-most-valuable-brands-revealed-895891021.html>
- ¹⁴¹ HM Treasury. (2018). Fintech Sector Strategy: Securing the Future of UK Fintech.
- ¹⁴² Monetary Authority of Singapore. (n.d.). FinTech and Innovation. Retrieved from www.mas.gov.sg: <https://www.mas.gov.sg/development/fintech>
- ¹⁴³ Alois, J. (2019, April 4). Canada's Regulatory System for Fintech is Complex, Costly and Chaotic. It is Stifling Fintech Innovation. Retrieved from <https://www.crowdfundinsider.com/2019/04/145982-canadas-regulatory-system-for-fintech-is-complex-costly-and-chaotic-it-is-stifling-fintech-innovation/#:~:text=Michael%20King%3A%20The%20leading%20jurisdictions,bodies%20towards%20achieving%20this%20goal.>
- ¹⁴⁴ Financial Data Exchange. (2020, July 29). Leading Canadian Financial Services Firms Moving to Adopt the FDX Technical Standards for Secure Financial Data Sharing. Retrieved from Financial Data Exchange: https://financialdataexchange.org/FDX/News/Press-Releases/FDX_Canada.aspx
- ¹⁴⁵ TD. (2020, August 7). TD enters into North American data-access agreement with Finicity. Retrieved from td.mediaroom.com: <http://td.mediaroom.com/2020-08-07-TD-enters-into-North-American-data-access-agreement-with-Finicity>
- ¹⁴⁶ Financial Data Exchange. (n.d.) Members. Retrieved from https://www.financialdataexchange.org/FDX/The-Consortium/Members.aspx?WebsiteKey=deae9d6d-1a7a-457b-a678-8a5517f8a474&New_ContentCollectionOrganizerCommon=3#New_ContentCollectionOrganizerCommon
- ¹⁴⁷ Schwartz, Z. (2020, June 17). Ottawa rejects fintechs' proposal for distributing COVID-19 aid for businesses. Retrieved from <https://thelogic.co/news/exclusive/ottawa-rejects-fintechs-proposal-for-distributing-covid-19-aid-for-businesses/>
- ¹⁴⁸ Kirkwood, I. (2020, May 28). CANADIAN STARTUP BOSS INSIGHTS HELPING AMERICAN SMALL BUSINESSES NAVIGATE PPP LOANS. Retrieved from <https://betakit.com/canadian-startup-helping-american-small-businesses-navigate-ppp-loans/>
- ¹⁴⁹ Cheung, B. (n.d.). Consumer Adoption of FinTech During The COVID-19 Pandemic. Environics Research. Retrieved from <https://environicsresearch.com/insights/consumer-adoption-fintech-covid-19-pandemic/>
- ¹⁵⁰ Department of Finance Canada. (2019). Consumer-directed finance: the future of financial services. Retrieved from <https://www.canada.ca/en/department-finance/programs/consultations/2019/open-banking/report.html>
- ¹⁵¹ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
- ¹⁵² Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
- ¹⁵³ Duval, A. (2019, December 11). Goodbye medicare card? Quebec wants to create digital versions of government IDs. Retrieved from <https://www.cbc.ca/news/canada/montreal/quebec-digital-online-services-1.5392000>
- ¹⁵⁴ Office of the Premier of Ontario. (2020, October 19). Ontario Onwards: Digital Identity Project. Retrieved from <https://news.ontario.ca/en/backgrounder/58873/ontario-onwards-digital-identity-project>
- ¹⁵⁵ DIACC. (2020, July 16). New Partnership to Advance Digital Identity in Quebec & Across Canada. Retrieved from <https://diacc.ca/2020/07/16/new-partnership-to-advance-digital-identity-in-quebec/>
- ¹⁵⁶ DIACC. (2018). The Economic Impact of Digital Identity in Canada.
- ¹⁵⁷ Dashlane. (2019, December 17). Big Tech, Bigger Mistakes: Facebook And Google Top Dashlane's List Of 2019's "Worst Password Offenders". Retrieved from <https://www.prnewswire.com/news-releases/big-tech-bigger-mistakes-facebook-and-google-top-dashlanes-list-of-2019s-worst-password-offenders-300975727.html>
- ¹⁵⁸ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf

- ¹⁵⁹ Department of Finance Canada. (2019). Consumer-directed finance: the future of financial services. Retrieved from <https://www.canada.ca/en/department-finance/programs/consultations/2019/open-banking/report.html>
- ¹⁶⁰ Accenture. (2020). 2020 Accenture Global Banking Consumer Study. Retrieved from https://images.info.accenture.com/Web/ACCENTURE/%7B0ac62f15-bd01-4a8a-b6d7-b75345fa9dd5%7D_Accenture-Banking-Consumer-Study-2020.pdf?elqcsst=272&elqcsid=227
- ¹⁶¹ Nardi, C. (2020, June 25). 'Don't waste a good crisis': Experts push governments to create digital ID programs in wake of COVID-19. Retrieved from National Post: <https://nationalpost.com/news/politics/dont-waste-a-good-crisis-experts-push-governments-to-create-digital-id-programs-as-covid-19-pushes-digital-transformation>
- ¹⁶³ Pangestu, M. E. (2020, August 20). Harnessing the power of digital ID. Retrieved from World Bank Blogs: <https://blogs.worldbank.org/voices/harnessing-power-digital-id>
- ¹⁶⁴ Pangestu, M. E. (2020, August 20). Harnessing the power of digital ID. Retrieved from World Bank Blogs: <https://blogs.worldbank.org/voices/harnessing-power-digital-id>
- ¹⁶⁵ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
- ¹⁶⁶ Goldman Sachs. (2020, January 29). Investor Trends. Retrieved from [goldmansachs.com: https://www.goldmansachs.com/investor-relations/investor-day-2020/presentations/consolidated-presentations.pdf](https://www.goldmansachs.com/investor-relations/investor-day-2020/presentations/consolidated-presentations.pdf)
- ¹⁶⁷ Son, H. (2020, October 28). This is Goldman's bet to break into a \$32 billion industry serving the world's biggest corporations. Retrieved from <https://www.cnbc.com/2020/10/28/this-is-how-goldman-intends-to-break-into-the-32-billion-industry-serving-c.html>
- ¹⁶⁸ 11:FS. (n.d.). Banking as a service: reimagining financial services with modular banking.
- ¹⁶⁹ Nicolle, E. (2020, August 6). Starling Bank predicts 2020 profitability despite deepened losses. Retrieved from Cityam.com: <https://www.cityam.com/starling-bank-predicts-2021-profitability-despite-deepened-losses/>
- ¹⁷⁰ Webber, D. (2020, July 30). How Payments Fintech Is Using Banking As A Service To Drive Growth. Retrieved from Forbes: <https://www.forbes.com/sites/danielwebber/2020/07/30/how-payments-fintech-is-using-banking-as-a-service-to-drive-growth/#52e770ee4b9b>
- ¹⁷¹ Fuscaldo, D. (2019, December 5). Digital Bank Chime Now Has A Valuation Of \$5.8 Billion. Retrieved from Forbes: <https://www.forbes.com/sites/donnafuscaldo/2019/12/05/digital-bank-chime-now-has-a-valuation-of-58-billion/#e33c52518721>
- ¹⁷² Ario. (2019, June 13). Ario: Business Financing Made Simple. Retrieved from <https://www.newswire.ca/news-releases/ario-business-financing-made-simple-844176943.html>
- ¹⁷³ Kirkwood, I. (2020, November 11). THINKING CAPITAL ACQUIRES FINTECH STARTUP ARIO TO BETTER SUPPORT SMB RECOVERY DURING THE PANDEMIC. Retrieved <https://betakit.com/thinking-capital-acquires-fintech-startup-ario-to-better-support-smb-recovery-during-the-pandemic/>
- ¹⁷⁴ Financial Data Exchange. (2020, July 29). Leading Canadian Financial Services Firms Moving to Adopt the FDX Technical Standards for Secure Financial Data Sharing. Retrieved from Financial Data Exchange: https://financialdataexchange.org/FDX/News/Press-Releases/FDX_Canada.aspx
- ¹⁷⁵ BDC. (2018, May). Business Needs and Potential Solutions: Survey Report. Retrieved from https://www.bdc.ca/en/documents/analysis_research/business-needs-potential-solutions-survey-report-may-2018.pdf
- ¹⁷⁶ Government of Canada. (2019, November). Key Small Business Statistics - November 2019. Retrieved from https://www.ic.gc.ca/eic/site/O61.nsf/eng/h_03114.html
- ¹⁷⁷ Government of Canada. (2019, November). Key Small Business Statistics - November 2019. Retrieved from https://www.ic.gc.ca/eic/site/O61.nsf/eng/h_03114.html
- ¹⁷⁸ BDC. (2018, May). Business Needs and Potential Solutions: Survey Report. Retrieved from https://www.bdc.ca/en/documents/analysis_research/business-needs-potential-solutions-survey-report-may-2018.pdf
- ¹⁷⁹ BDC. (2018, May). Business Needs and Potential Solutions: Survey Report. Retrieved from https://www.bdc.ca/en/documents/analysis_research/business-needs-potential-solutions-survey-report-may-2018.pdf
- ¹⁸⁰ BDC. (2018, October). Digitize Now. Retrieved from https://www.bdc.ca/EN/Documents/analysis_research/how-to-make-the-digital-shift-in-your-business-study.pdf
- ¹⁸¹ BMO. (2020, August 11). BMO Completes API Portal for Small Business Customers in Move Towards Open Banking. Retrieved from <https://newsroom.bmo.com/2020-08-11-BMO-Completes-API-Portal-for-Small-Business-Customers-in-Move-Towards-Open-Banking>
- ¹⁸² TD Bank Group. (2020, September 2). TD enters into North American data-access agreement with Intuit. Retrieved from <http://td.mediaroom.com/2020-09-02-TD-enters-into-North-American-data-access-agreement-with-Intuit>
- ¹⁸³ CIBC. (2019, October 24). CIBC Launches First-of-Its-Kind Digital Account Opening for Business Owners. Retrieved from <https://www.newswire.ca/news-releases/cibc-launches-first-of-its-kind-digital-account-opening-for-business-owners-866550313.html>
- ¹⁸⁴ Kirkwood, I. (2019, May 13). CIBC LAUNCHES NEW BANKING PLATFORM FOR SMALL AND MEDIUM-SIZED BUSINESS. Retrieved from BetaKit: <https://betakit.com/cibc-launches-new-banking-platform-for-small-and-medium-sized-business/>
- ¹⁸⁵ Simpson, M. (2019, June 11). WAVE TO BE ACQUIRED BY H&R BLOCK FOR \$537 MILLION CAD. Retrieved from BetaKit: <https://betakit.com/wave-to-be-acquired-by-hr-block-for-537-million-cad/>
- ¹⁸⁶ Serebrin, J. (2019, March 9). Montreal's Lightspeed a rare Canadian IPO success story. Retrieved from <https://>

- montrealgazette.com/business/montreals-lighspeed-a-rare-canadian-ipo-success-story
- ¹⁸⁷ Silcoff, S. (2020, September 17). Nuvei stock soars after largest tech IPO in TSX history. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/business/article-nuvei-stock-soars-in-ipo-making-it-the-latest-canadian-tech-firm-to/>
- ¹⁸⁸ McLeod, J. (2020, May 6). Shopify becomes Canada's most valuable company after quarter beats expectations on back of pandemic. Retrieved from <https://financialpost.com/technology/shopify-revenue-beats-as-virus-lockdowns-boost-merchant-signups>
- ¹⁸⁹ Simpson, M. (2020, May 12). SHOPIFY BRINGING TAP & CHIP CARD READER TO CANADA. Retrieved from BetaKit: <https://betakit.com/shopify-bringing-tap-chip-card-reader-to-canada/>
- ¹⁹⁰ Zochodne, G. (2020, May 20). Shopify to launch its own take on the business bank account. Retrieved from <https://financialpost.com/technology/shopify-to-launch-its-own-take-on-the-business-bank-account>
- ¹⁹¹ Kirkwood, I. (2020, December 4). SHOPIFY BALANCE TO BE POWERED BY STRIPE, EVOLVE BANCORP. Retrieved from <https://betakit.com/shopify-balance-to-be-powered-by-stripe-evolve-bancorp>
- ¹⁹² Kirkwood, I., & Simpson, M. (2020, June 11). WAVE EXPANDS INTO BANKING WITH NEW SMALL BUSINESS ACCOUNT AND DEBIT CARD. Retrieved from BetaKit: <https://betakit.com/wave-expands-into-banking-with-new-small-business-account-and-debit-card/>
- ¹⁹³ Canadian Bankers Association. (2020, December 23). Focus: Fast facts on bank measures in response to the COVID-19 pandemic. Retrieved from <https://cba.ca/fast-facts-on-bank-measures-in-response-to-the-covid-19-pandemic>
- ¹⁹⁴ Accenture. (2020). How Banks Can Prepare for the Looming Credit Crisis. Accenture. Retrieved from <https://www.accenture.com/ca-en/insights/banking/coronavirus-credit-crisis>
- ¹⁹⁵ Kim, F., & Jamison, J. (2020, June). COVID 19: A NEAR-TERM RESPONSE TO CREDIT RISK. Retrieved from [financeandriskblog.accenture.com: https://financeandriskblog.accenture.com/risk/covid-19-a-near-term-response-to-credit-risk](https://financeandriskblog.accenture.com/risk/covid-19-a-near-term-response-to-credit-risk)
- ¹⁹⁶ Simpson, M. (2020, May 7). WITH \$73 MILLION CAD, SYMEND CLOSES ONE OF THE LARGEST SERIES B ROUNDS IN RECENT ALBERTA HISTORY. Retrieved from BetaKit: <https://betakit.com/with-73-million-cad-symend-closes-one-of-the-largest-series-b-rounds-in-recent-alberta-history/>
- ¹⁹⁷ Equifax. (n.d.). Credit Decisioning. Retrieved from [equifax.com: https://www.equifax.com/business/credit-decisioning?intcmp=home-FOCpromo](https://www.equifax.com/business/credit-decisioning?intcmp=home-FOCpromo)
- ¹⁹⁸ Holmes, C. (2020, May 4). Credit scoring: Going alternative. Retrieved from <https://www.finextra.com/blogposting/18716/credit-scoring-going-alternative>
- ¹⁹⁹ Wilson, M. (2020, August 6). This John Legend-backed startup uses AI to improve your credit – for free. Retrieved from <https://www.fastcompany.com/90537012/this-john-legend-backed-startup-uses-ai-to-improve-your-credit>
- ²⁰⁰ Accenture. (2020, June 19). 10 consumer trends impacting CPGs. Retrieved from <https://www.accenture.com/ca-en/insights/consumer-goods-services/coronavirus-consumer-trends-impacting-cpgs>
- ²⁰¹ Subramaniam, V. (2020, March 20). Even Canada's big banks are facing challenges in scaling up remote-work capabilities. Retrieved from <https://financialpost.com/news/fp-street/covid-19-big-banks-challenges-remote-work>
- ²⁰² Senz, K. (2020, August 24). How Much Will Remote Work Continue After the Pandemic? Retrieved from <https://hbswk.hbs.edu/item/how-much-will-remote-work-continue-after-the-pandemic>
- ²⁰³ Global Workplace Analytics. (2020, March 13). Latest Work-At-Home/Telecommuting/Mobile Work/Remote Work Statistic. Retrieved from <https://globalworkplaceanalytics.com/telecommuting-statistics>
- ²⁰⁴ Ozimek, D. A. (2020). When Work Goes Remote. Upwork. Retrieved from https://content-static.upwork.com/blog/uploads/sites/6/2020/07/23063848/Upwork_Report_WhenWorkGoesRemote_July2020-2.pdf
- ²⁰⁵ Cutter, C. (2020, July 24). Companies Start to Think Remote Work Isn't So Great After All. Retrieved from <https://www.wsj.com/articles/companies-start-to-think-remote-work-isnt-so-great-after-all-11595603397>
- ²⁰⁶ Accenture. (2020, June 19). 10 consumer trends impacting CPGs. Retrieved from <https://www.accenture.com/ca-en/insights/consumer-goods-services/coronavirus-consumer-trends-impacting-cpgs>
- ²⁰⁷ Accenture. (2020, March 11). Productivity in Uncertain Times through the Elastic Digital Workplace. Retrieved from Accenture: <https://www.accenture.com/ca-en/about/company/coronavirus-solution-elastic-digital-workplace>
- ²⁰⁸ Kirkwood, I. (2020, November 2). ONTARIO SECURITIES COMMISSION TO LAUNCH REGULATORY SANDBOX FOR STARTUPS. Retrieved from <https://betakit.com/ontario-securities-commission-to-launch-regulatory-sandbox-for-startups/>
- ²⁰⁹ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
- ²¹⁰ Cheung, B. (n.d.). Consumer Adoption of FinTech During The COVID-19 Pandemic. Environics Research. Retrieved from <https://environicsresearch.com/insights/consumer-adoption-fintech-covid-19-pandemic/>
- ²¹¹ Payments Canada. (2020, May 13). COVID-19 pandemic dramatically shifts Canadians' spending habits. Retrieved from <https://www.payments.ca/about-us/news/covid-19-pandemic-dramatically-shifts-canadians%E2%80%99spending-habits>
- ²¹² Cheung, B. (n.d.). Consumer Adoption of FinTech During The COVID-19 Pandemic. Environics Research. Retrieved from <https://environicsresearch.com/insights/consumer-adoption-fintech-covid-19-pandemic/>

- ²¹³ Payments Canada. (2020, May 13). COVID-19 pandemic dramatically shifts Canadians' spending habits. Retrieved from <https://www.payments.ca/about-us/news/covid-19-pandemic-dramatically-shifts-canadians%E2%80%99spending-habits>
- ²¹⁴ Hyder, G. (2020, September 7). Canada needs to get its stalled immigration system back on track. Retrieved from Globe and Mail: <https://www.theglobeandmail.com/opinion/article-canada-needs-to-get-its-stalled-immigration-system-back-on-track/>
- ²¹⁵ Crane, D. (2020, September 14). Canada needs better ways to transform early stage companies into future global champions. Retrieved from The Hill Times: <https://www.hilltimes.com/2020/09/14/263060/263060>
- ²¹⁶ Standing Senate Committee on Banking, Trade and Commerce. (2019). Open Banking: What It Means For You. Senate of Canada. Retrieved from https://sencanada.ca/content/sen/committee/421/BANC/reports/BANC_SS-11_Report_Final_E.pdf
- ²¹⁷ Yoon, S., & Hillyer, M. (2020, June 16). These are the World Economic Forum's Technology Pioneers of 2020. Retrieved from [weforum.org: https://www.weforum.org/agenda/2020/06/technology-pioneers-2020/](https://www.weforum.org/agenda/2020/06/technology-pioneers-2020/)
- ²¹⁸ TFI. (2020, October 13). Call for Canadian FinTechs: Opportunity to join funded FinTech Missions. Retrieved from <https://tfi.ca/news/call-for-canadian-fintechs-opportunity-to-join-funded-fintech-missions>
- ²¹⁹ Global Alliance Fintech Link. (n.d.). Are you a Fintech looking to partner with an innovative bank? Retrieved from <https://globalfintechlink.com/>

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